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ORIGINAL DEPARTMENT.

LECTURE.

ABNORMAL POSITIONS OF THE HEAD—WHAT DO THEY INDICATE?

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A Clinical Lecture Delivered before his Private Class of Practitioners, with a Case of Dislocation of the Cervical Vertebræ.

GENTLEMEN: Instead of continuing our study of the injuries of the hand, we shall to-day take up a very interesting subject, about which you can find, so to say, nothing in the journals and very little in the text-books. It is *abnormal positions of the head.* I mean to speak of cases which are of a complicated nature—cases where the different positions of the head will serve as a valuable diagnostic sign in determining the ailment of the patient. It so happens that I am able to bring before you several cases to-day, to illustrate practically what I have to say. You may know at once, that in any mal-position of the head we have to consider the conditions of the neck, both in its muscular and bony structure.

Look carefully at these four little patients sitting before you, and remember what I have so often repeated, that before you proceed to make any manual examination you should precede it with a careful ocular examination. Observe closely, and first learn all the conditions you can with your eyes. Now, how are we to group these conditions for clinical purposes? The answer is, first into cause, and second, progress; for if these conditions were *not* brought on gradually they would lead our minds at once into quite a different channel, and our examinations would end perhaps with a wrong conclusion.

Let us take the first case. Here is a little boy nine years of age. Look at the position of his head. This is a chronic case. He has carried his head for sometime in this stiff manner that he might avoid all rotation, or any movement forwards and backwards. Stand quiet and straight, my boy; now turn your head towards the window. We see he cannot do this, without turning around his whole body. Now, if we knew nothing about the history of this case, how should we begin to make a correct diagnosis? We should necessarily make some anatomical observations, and ask, Are the causes of this abnormal position produced by muscular disease, by disease of the bones, or by disease of the joints? We may put it into still a shorter phrase, and ask, Are any of the active or passive structures of motion here implicated? This simplifies the question, and will serve very well for clinical examination.

Now to our case. The mother tells us that about a year ago this boy began to complain of difficulty in swallowing, and something like constriction around his neck; that he had a cough which continued in spite of cough mixtures. She gave these for some time before she noticed the stiffness of his neck. Then very severe pain came on, and it continued until the present stage of development.

Now, if such a case presents itself to us in the early stage, and after careful physical examination of the chest, and laryngoscopical examination, we can detect no disease of the chest or larynx, sufficient to account for these symptoms, then let us direct your attention to the nerves

that make their exit from the spinal canal at the points opposite to the usual site of the disease. Examine carefully the spinal column in the manner that I have previously shown you; and do not forget that after all, the symptoms enumerated may be produced by reflex nervous irritation.

Here, in this patient, we can observe that there is a swelling upon the left side of the neck; that side is convex; there is pain under pressure, and we can feel a seeming enlargement of the bony part below. This depends, however, upon the swelling of the soft structures united to the bony structures. The head of this boy is now inclined to the right and bent forward, and the sterno-cleido mastoideus on the right side is relaxed and concave. In the progress of the disease this picture will be reversed; the head will then incline to the left side, on account of the bony structures upon that side being destroyed by caries. The diseased left side will then be concave and the right side somewhat convex; at any rate, it is to the concave side we have to look for the destruction going on of the bony parts. In this case the swelling and pain give us the indications of what the disease is.

During the different stages of the disease we shall meet with different symptoms and different diagnostic signs. In some cases we shall find a torsion of the vertebral column, and can feel a prominence in the throat of one or the other vertebra, like steps. In others we may distinctly feel a prominent, painful spinous process. I cannot go into details about this to-day, but during the course, we shall take up this study again. The result of our diagnosis is that this is a case of Pott's disease.

"Pott's disease" begins first as caries of the vertebræ or caries of the joints of the vertebræ. We shall not always be able to tell where the disease first made its appearance—whether in the bones or in the cartilage. Many satisfy themselves by saying, "This is caries or ostitis or periostitis of the cervical vertebræ, depending upon tuberculosis or a scrofulous diathesis." I believe, however, that the majority of these cases result from injuries. We shall learn more about that at some other time.

Now, let us look at this little girl; she is about eleven years old. Observe the very peculiar position, or rather carriage of her head and her distressed physiognomy. Bend your head forward and backward, my child. You see she accomplishes this slowly. Come, sit upon this table; now try to lie down, please. You see she immediately brings both hands to her head to give it support. Now, arise. You see, again both hands are brought to the head to support it. These symptoms came on gradually.

From what you have seen, what would be your diagnosis? You would rather that I should make it. All right; I say there is disease of the second cervical vertebra. Why? Because the rotary movements are accomplished only by the atlas turning upon the dentata, and there are here no visible signs present such as we observed in the previous case; the parts lie too deep to admit of any prominent external indications. The forward and backward motion is accomplished between the occiput and atlas. This the patient can do; therefore there can be no disease at that point.

This affection has been called "Rust disease," because Prof. Rust first described it. It is, however, only a special case of "Pott's Disease." The patient's instinct tells her to support her head to save it from harm. She is in great danger of fracturing the odontoid process, thus injuring the spinal cord and producing death at once. We find the same symptoms when the odontoid process is affected with carcinoma or sarcoma, but the pain in that case will not cease when the patient assumes the recumbent position.

Whenever we have a case where the patient cannot rotate his head, and supports it with his hands during the act of lying down or rising up, we can rest assured we have some disease or injury between the atlas and dentata. Of course, the severity of the symptoms will depend upon the amount of injury, but in no other disease or injury will we find such positive symptoms. We may have a complication of other injuries or diseases in addition to these symptoms, that may not depend upon the injury between the atlas and dentata. They may be of quite a different nature, but no matter what the complications are, we must not be misled and overlook this important point. Ability to make a forward and backward motion of the head, with only a partial or perhaps complete absence of rotation, is our guide to the diagnosis of injuries or disease of the dentata.

Now we place on our patient this temporary cravat. By next Wednesday her apparatus will be made, and we shall apply it, and give her at least temporary relief. I say temporary, because sooner or later these unfortunates will succumb suddenly by fracture of the odontoid process.

Now let us examine the next little girl. She is about six years old. Her mother states that she had this distortion from birth; otherwise she never was sick. But for the last two years this

deformity seemed to grow worse. Her head, we see, is sunk towards the left side, and rotates towards the right side. We see that the sterno-cleido-mastoid muscle of the left side is very prominent, and is shortened by contraction. In all these one-sided contractions, we observe that the ear is nearer the shoulder on the diseased side and the chin is turned towards the sound side. The occiput is also a little lower. Here we have a case of torticollis. We shall meet this same picture in some cases of "Pott's disease" where the disease has been cured with a scoleotic curvature of the cervical vertebræ. How do we make the differential diagnosis? The question is this: Are the contractions of the muscles primary or secondary? A single glance will answer our query. In the case before us we see the head is bent towards the one side and rotated towards the other. If this distortion had been produced by "Pott's disease," the head would also be bent forward, but not rotated to the other side. Primary contractions of the sterno-cleido-mastoid muscle are congenital; secondary contractions are acquired.

These symptoms may, however, be present in a hysterical person, and we must be careful not to be deceived in such a case, for the contractions then depend upon spasms.

This child will be brought here again next Wednesday. I shall then divide this muscle and show you how the head is to be kept in a normal position.

Besides these conditions that we have observed in the three cases presented, there remain a few other abnormal positions of the head valuable for clinical purposes. They are characterized by their sudden appearance. Of course, I mean injuries such as contusions, concussions, luxations, and fractures of the cervical vertebræ. Here let me call your attention to acute rheumatism of the muscles of the neck, which is also a cause of an abnormal position of the head, and though the latter is quite a different disease from the former, nevertheless it deserves the attention of the surgeon, because very often rheumatism (sudden pain of the muscles) occurs in conjunction with slight injuries; and the mal-position of the head produced by acute rheumatism presents almost the same appearance to the eye as if it were produced by injuries, and the two are very often mistaken, the one for the other.

Now, let us take a look at this little miss. She is about twelve years old, of a healthy constitution; she lives in the country. Her parents brought her here this forenoon, with the following history: While playing during recess at school, no doubt romping about with the other children, she felt all at once a quick sharp pain in her neck, her head turned to the left side, and she could not move it. This is rather a unique case, and the interesting point is this: it occurred about two weeks ago; she has been rubbed with liniment, warmth has been applied, etc., etc., all to no purpose. She now has difficulty in swallowing, and her right arm begins to feel numb and somewhat lame. You see that her head is turned to the left side, the left side of the cervical vertebræ is concave, but the muscles on this side are not contracted; the right side is convex. No movement of the neck and head can be executed. You see the left side is somewhat flushed, the right side is pale. This tells us that the vaso-motors are implicated. Here at the highest point of convexity, it is very painful under pressure. Below this point here, I feel a transverse vertebral process. She also has strabismus. The left eye is divergent, the right convergent. What is the diagnosis? Well, we have here a partial luxation of the fourth cervical vertebra, or rather the upper four cervical vertebræ.

What are the differential points between dislocation and rheumatism? In dislocation the muscles are perfectly relaxed; in rheumatism they are contracted; at least they are hard and stiff, and no perceptible prominence of the spinous processes is present. If this is not satisfactory to you, chloroform the patient. As long as the luxation is not reduced, there can be no motion. In rheumatism you can make passive motion at once.

We shall now try to reduce this dislocation, and I shall do this by suspending the patient carefully by the head, and by manipulations. The parents have been informed of the hazard connected with this operation, and have given their consent, and I ask of you not to become alarmed if you see the patient turn blue, and probably suspend breathing for a second. Keep perfectly quiet and tranquil—a virtue the surgeon should always possess.

The child was suspended by the head, and the reduction speedily accomplished.

Ah! this is fortunate. You see the reduction was comparatively easy. Did you notice how blue the child turned for a moment? She can now move her head. The strabismus has disappeared. How easily she breathes now! Now, don't cry, my child, you are all right. We shall now apply, as a matter of protection, one of those temporary cravats and let her wear it for a fortnight.

Cases of dislocation of cervical vertebræ are very rare, at least very few are on record. This is the second case I have met with in my practice, and the first in which I have used this method of reduction by suspending the patient by the head. Luxations between the head and the atlas do sometimes occur; also luxations of the atlas; they are, however, very rare. But very few cases are on record. We may meet with the lateral and bi-lateral dislocation of all of the vertebræ, but with a little thinking, you can draw for yourself an imaginary picture of the position that the head must necessarily assume when such injuries take place.

Contusions of the head may simulate bi-lateral luxations backwards. In such cases, examine the muscles of the back of the neck, and remember, if they are spasmodically contracted there is no dislocation. In paralysis of the muscles of the back of the neck, the head will be drawn forwards and the chin be pressed upon the sternum.

Besides the mal-positions of the head pointed out already, there are other forms which are deserving of our attention for a few minutes. For instance, in dislocation of the shoulder, the patient bends his head toward the injured side. A simple furuncle may be the cause of the head being held perfectly motionless. A swelling or tumor may produce distortion of the head. These secondary abnormal positions may not exactly help us to a direct diagnosis, but if we pay attention to them, they will guide us into a positive direction. In a case of stenosis of the air-passages, we naturally think of croup, but instead of finding the head bent backwards, as children invariably do in croup, it will be bent forwards and a retro-pharyngeal abscess be the cause of the trouble. In a malposition of the head caused by paralysis the muscles are relaxed and atrophied.

Let us finally remember that abnormal positions of the head may depend upon neurotic causes. Spasm of the deep-seated muscles will throw the head backwards. Spasm of the superficial muscles will throw it forwards. The diagnosis can always be made, for the muscles here are contracted. By the contraction of an old cicatrix, such as is left after a carbuncle or burn, very peculiar positions of the head are produced.

A good deal more might be said of the different mal-positions of the head, as a diagnostic sign, but we have gone already far beyond our time, and I hope you have been interested, and that the cases proved instructive to you. I thank you for your attention.

COMMUNICATIONS.

INVERSE TYPE OF TEMPERATURE IN TYPHOID FEVER, WITH A REPORT OF TWO CASES.

TEMPERATURE PECULIARITIES IN EPIDEMICS, WITH A REPORT OF SEVEN CASES IN ONE FAMILY.

BY W. C. HOLLOPETER, M. D.,

Of Philadelphia.

(*Continued from page* 104.)

The point worthy of attention is, that the temperature in this nearly fatal case remained nearly the same for the morning and the evening record. Immermann tells us, that only in cases in which the fever is very severe, and the absolute temperature very high, that the difference is less, and does not exceed three-fourths of a degree.

Case 2. The second member of the family to fall ill was the mother, æt. 32, who had acted as constant nurse to the daughter. It was thirty-four days after the daughter was taken sick, and the daughter was yet in bed, when the mother was compelled to relinquish her duties. I might state that the mother was on the eve of her confinement, that she watched and waited on her sick child up to the hour of her illness, she passed safely through her labor, remained in bed one week, was up and around the house for *five days* before she had any decided symptoms of fever. She had a slight chill, which was soon followed by a temperature of 104⅔° in the evening. This was, however, the highest point reached. She had no delirium, nor vomiting. Bowels were opened daily, but not unnatural. The temperature remained high for over a week, ranging between 103° and 104½°. It had a gradual decline for over thirty-six days, when it reached normal, without any unusual variations between the morning and evening record. Convalescence was very slow. The record was a typical temperature record from the second week of typhoid, yet much milder than that of the child. The puerperal state did not seem to modify the course of the fever or endanger the life of the patient.

Case 3. The husband and father, æt. 36, a house-carpenter by trade, rugged and compactly-built German, was next on the list. He was a perfect type of physical perfection. He continued his work up to the hour of taking to his bed, February 10. He had complained of a cold, headache, and sore throat for two days previously. I found him, on the morning of the 10th, with a temperature of 105⅔°, pulse 90, respiration 20, dry, hot skin, dark and injected countenance, bowels

loose, abdomen flat, very stupid and sleepy. In this case the pulse was full and regular, never going above 90, and yet for over two weeks his temperature lingered around 105°, with profound stupor, alternating with the wildest delirium. He had during the second week constant *subsultus tendinum*, and frequent involuntary movements of the bowels. On the twenty-second day of his illness he suffered a hemorrhage of fully eight ounces. He had several smaller hemorrhages previous to this date. On the sixteenth day his temperature fell to 101⅕°, remaining under 102° with but one exception, when it ran up to 103°. Temperature did not reach normal until the thirty-eighth day.

Case 4. Caroline, æt. 5, was taken ill on January 13, three days after her mother. She started with a temperature of 104⅘°. She had been listless and stupid for a week preceding her complete prostration; during the prodromata I registered her temperature twice daily, but did not find the thermometer above 100°. Two days from the last date the fever had reached 105⅖°. From this point on it was a gradual decline for twelve days, when it as gradually climbed up to its old figure of 105⅖°. This intermitting type continued for forty-two days, when it fell below 100°, and I ceased to make a record. The case was one of unusual severity, frequently losing large quantities of blood by the bowel, yet constipation was the rule throughout the illness. Epistaxis was also constant, the face being stained daily with blood; low delirium existed for over two weeks. The patient was in bed for over seven weeks.

Case 5. Katie, æt. 10, had a temperature record of her own—a marked difference existing in this case from the others. Above 104⅖° to start with, reaching 105° the same evening, remaining above 104° for *three days*, then gradually declining for three days, when it assumed again the upper tendency, holding it for three days, then came a rapid fall. This intermittent character in the temperature continued for thirty-two days.

This case was obstinately constipated throughout her illness, and was but slightly delirious. Recovery slow, six weeks in bed.

Case 6. Pauline, æt. 14, an unusually well-developed girl, and the last case which I deem of sufficient interest to record in the history of this family epidemic, will also illustrate a different phase in temperature irregularities. Three of the children before they became actually sick were noticed to have a weary, listless expression, did not manifest interest in their play, showed a decided preference for the house, which was contrary to their usual habits.

I registered the temperature of two of the younger children for a week or more before they were stricken down, and I did not find an elevation of temperature but slightly above normal, unless the temperature was taken in the evening, when it was generally near 100°. Taking into consideration the daily fluctuation in health, which is always higher in the evening, I could scarcely draw the line between the normal evening elevation in health, and the insidious approach of the fever. With Pauline I still endeavored to anticipate the onset of the disease. Acting on the suggestion of some of my professional friends, I commenced to register her temperature nearly two weeks before I perceived any indications of her being the next to fall sick. I might anticipate any theoretical conclusions likely to find lodgment in your minds as to the causation, by stating that the girl had been employed in a dry-goods store, and was brought home to take charge of the sick family. Upon her devolved most of the washing and cooking for the sick. While the younger children were out of the house nearly all day at play, she was busy with household duties, and was in this way more exposed to the infectious disease than her younger sisters, who seemed to contract it so readily. I found it most convenient to take her temperature at the time I visited the other members of the family, *i. e.*, between nine and eleven in the morning, and eight and nine in the evening. I never found her temperature above normal, until within four days before she was compelled to take to her bed. Three days before her prostration, the thermometer registered 102°, normal the following day; second day it was 101⅘°; the following day it ran up until it reached 104⅘°. Her temperature continued high for over ten days, ranging from 103° to 105°; then assumed the intermitting character so frequently noticed in the record of the other members of this family, after which the fever record had a gradual decline. By anticipating her attack of the fever, and registering her temperature for over a week, three days in which her fever was above normal, gave us part of the ascending scale of Wunderlich—yet does not supply the gradual ascent and the lengthened arc of the semicircle, which should describe the model typhoid temperature record.

I have hinted that the cause of this epidemic had a tangible existence. While it is not the object of this paper to touch upon the etiology of typhoid, yet it may not be without interest to mention the environments of this fated household. It is unusual to have seven cases of typhoid occur

in one family, and follow each other in such rapid succession; yet not until the third member of the family was prostrated, could an adequate cause be found.

The head of the family was an industrious carpenter, who resided, with his wife and five children (two older girls were not living at home), in a two-storied, four-roomed house, near Thirteenth and Columbia avenue. The house was quite comfortable for a small family, but not so for this one; hence they were crowded. Yet I have seen families packed in, and live free from disease, when there has been actually more to a room than in this family. The cellar was dry, drainage in a fair condition. A vacant lot of enclosed ground intervened between our family and the nearest neighbor on the north. This neighbor on the north was in the milk business, and for his convenience, he had excavated a pit in the vacant lot adjoining our family's cellar-wall, four feet deep, into which he had dumped the rubbish of the yard. The rain and snow, falling upon the decomposing mass of organic material, soon found its way through the intervening stone-wall, percolating its liquid poison into the cellar. This filth, while not all times sufficient to be recognized by the sight, was more frequently perceptible to the sense of smell. The pit could in no way impregnate the drinking-water of the family, for, as a precaution, I had all the water that was consumed for that purpose brought to them from a distant neighbor.

While we have mentioned the exceptional in the temperature record, we may also entertain a doubt of this rubbish-pit being the only factor in the family illness. The first case in the epidemic, Mary, æt. 13, was employed in a store; hence she was not in the atmosphere of the house as long as the mother, who was the only one who constantly lived in the poisoned house, and yet second on the list, and, while she had a severe attack, her illness was not so prolonged as the first. Again, Pauline, the eldest girl, came from another family, in perfect health, resided for three months in the infected house, exposed to every form of contagion, and was the last to succumb to the disease; and when finally she was prostrated, the fever ran a comparatively mild course.

In directing your attention especially to the peculiarities of temperature in the foregoing cases that ended in recovery, I wish now to contrast them with one that, while the temperature was under control, and lower than any of the foregoing, yet, without complications, it ended fatally.

A finely-built young man of 27, regular, but rather full habit, first complained, August 1, of intense headache, backache, indifferent appetite, and general disinclination to exertion. He left the city, against the wishes of friends, as well as myself, for a trip through the South. On the 3d he was taken violently sick; sent home, reaching the city August 4. At my first visit, same day, at 12 m., temperature was 104°; at 8 p. m., 104⅘°. On the sixth day he lost consciousness. His delirium was wild and pugnacious; constant mutterings. At the same time his temperature fell below 104°, and remained below for over a week. On the tenth day his temperature reached 104⅘°. From this point it fell, and remained under 103° until the fifteenth day, when it ran up to 104⅘°, at death.

It is unusual to find patients unconscious when the temperature is so easily under control. In this patient the only antipyretic measure used was the cold bath. None of the symptoms of this case were as severe as the group occurring in the epidemic; yet this case terminated in death, while all of the others, indifferently nursed and badly surrounded, made good recoveries.

While it has been my principal object to record these cases of typhoid, as departing in a measure from the temperature law of Wunderlich, I wish to call your attention incidentally to the following facts:

1. Six of the group of cases noticed in this paper were children, yet we had a severe course of the fever, and the temperature record commenced high, showing frequent irregularities. Wunderlich states, that in children, particularly in the younger subjects, the course of typhoidal temperature is somewhat irregular. The commonest of these irregularities is its extreme mildness; yet the temperature rises in the first days to a higher average than in adults; it passes more quickly into the remitting period, and defervescence is less protracted, but complications often occur, closely indicated by the temperature.

2. In the nine cases of typhoid, including mild as well as severe examples, we had four cases of intestinal hemorrhage. An unusually large percentage. Systematic writers on fever regard intestinal hemorrhage as a rare and grave symptom. While Liebermiester states that there is not a single symptom belonging to typhoid which can be characterized as pathognomonic, yet a tendency to diarrhœa is quite frequent and intestinal hemorrhage quite rare, in our cases we found the bowels confined in over half of the cases.

Dr. Broadbent looks upon constipation in typhoid as of sufficient importance as to entitle the fever to a distinct variety.

REMOVAL OF UTERUS AND OVARIES BY ABDOMINAL SECTION, FOR FIBRO-MYOMATA. DEATH ON TWELFTH DAY FROM SEPTICÆMIA.*

BY J. M. BARTON, M. D.

Mrs. K., æt. 31 years, was brought to me last September, by Dr. M. B. Dwight, of Jersey Shore, Pa. She was very pale, the face and lips being entirely colorless; indeed, the appearance of the patient suggested the presence of malignant disease. She had to be carried to her room on her arrival in this city. She had been losing more blood than she should for several years, and for several months she had a daily loss, frequently in quite large amounts, and was losing strength rapidly.

On examination, a large, hard, smooth, and freely movable tumor, evidently the uterus, extending three inches above the umbilicus, was found; by the sound, Dr. Dwight's diagnosis of a sub-mucous fibroid with extensive uterine attachments, was readily confirmed.

As the uterus was entirely out of the pelvis, as the attachments of the tumor occupied more than three-fourths of its entire circumference, and as the remaining uterine wall was much thinned, removal by the vagina was plainly impossible. I advised extirpation of the ovaries, if accessible, or of the entire uterus, if, on exploration, it appeared preferable.

The patient returned to her home, as she preferred to have the operation performed there, to which I agreed, as I considered the mountain air much more favorable for operation and after-treatment than the wards of a general hospital.

On September 30, I visited Jersey Shore, and removed the growth, assisted by Drs. Dwight and Cline, of that place; Drs. Detweiler and Youngman, of Williamsport; Dr. Armstrong, of Lockhaven; and Dr. Orville Horwitz, of Philadelphia.

Thorough antiseptic precautions were taken, the hands of the operator and assistants were washed in carbolic acid solution, all the instruments and ligatures were immersed in a similar mixture, the sponges were washed in a warm solution of the same acid, the abdomen of the patient was washed first with turpentine, then with soap and water, and lastly with carbolic acid solution.

I made an incision through the abdominal wall, midway between the umbilicus and pubes, about two and a half inches long, through which I readily drew the right ovary; the left, however, could not be reached. Finding the uterus free from adhesions, and movable, we decided to remove it. I increased the incision until it ran nearly from ensiform cartilage to pubes, carefully checking all hemorrhage by forceps and catgut ligatures before opening the peritoneum; the uterus was readily lifted from its bed and placed upright, the left broad ligament was attached posteriorly, and the left ovary laid against the spine, showing that it could not have been reached through the original incision. The intestines were held away from the uterus, and supported by large flat sponges, wrung out of warm carbolic acid solution. The broad ligaments were tied in sections with carbolized silk and Thomas's large clamp placed upon the neck of the uterus.

Surrounding the parts with sponges, to prevent blood entering the peritoneal cavity, into which so far none had escaped, the uterus and both ovaries were rapidly removed; there being but little tension on the pedicle, we decided to treat it outside.

The stump was trimmed so as to leave but little projecting above the clamp; it was transfixed by a large pin, and was seared on its cut surface by the actual cautery, the wound was closed by the interrupted suture introduced from within in the usual manner; it was not found necessary to make the "toilette of the peritoneum," as, thanks to the care of my assistants, no blood had been allowed to enter that cavity, and, indeed, but little was lost during the entire operation.

The uterus was seven inches in diameter, and nearly a sphere; it was occupied by a single fibromyoma, which was attached to the entire uterine walls, with the exception of a narrow channel, about two inches wide, running from neck to fundus; on section, it presented the usual appearance of such growths, except in its centre, where it appeared to have undergone sarcomatous degeneration. This suspicion was subsequently confirmed on microscopical examination.

The after-treatment of the case was in the hands of Dr. Dwight, from whose very complete notes I take the following points:

The evening of the operation the temperature rose to 102.5°, the pulse to 120; under opium suppositories and occasional hypodermics of morphia, the patient was quite comfortable; she took nothing whatever into the stomach except small quantities of hot water, and had no vomiting. On the second day the thermometer rose to 104°, the maximum temperature observed.

On the third day she took some barley-water

*Read before the Philadelphia County Medical Society, December 17, 1884.

and in the evening some beef-tea, the general condition being improved and improving still more the fourth day.

On the fifth day (October 4) the bowels were moved by an enema: opium stopped; beef-tea, brandy, and warm milk were taken freely; the patient was quite comfortable.

On the sixth day (October 5), patient rested well during the night, takes warm milk every three hours; pulse stronger, 120; temperature, 101°; patient looks quite bright; natural movement of the bowels.

The notes of the seventh, eighth and ninth days are almost identical with the last one read, except that stitches were removed, and on the ninth day there is considerable pus coming from wound, and some swelling of the right parotid gland.

On the tenth day the swelling of the parotid gland increased; there were evidences of systemic poisoning; and on the evening of the eleventh day she died.

At the autopsy, there was no inflammation of intestine, there was no pus found in lungs, liver, or kidneys, though there was some in the abdominal cavity. This had probably entered a day or two before her death, and from it the blood-poisoning, which proved fatal, arose.

Hospital Reports.

PENNSYLVANIA HOSPITAL CLINIC.

BY DR. R. J. LEVIS, SURGEON.

Reported by C. Levis Bower.

Fracture of the Lower End of the Radius.

I bring before you to-day a fracture of the lower end of the radius. There are no fractures of bones of which a complete comprehension is more generally needed than those of the lower end of the radius. There is no other class of fractures in which, with the treatment ordinarily pursued, the apposition of fragments is so liable to be imperfect and to result in deformity with painfulness, defective innervation, and impairment of the utility of the limb. Perhaps there are no fractures which so often fail to be even recognized as these fractures; and I am convinced that their peculiar nature and the indications of their treatment are not sufficiently understood. I have seen more instances of dissatisfaction of patients with their medical attendants in regard to the results of these peculiar fractures than of any other, and I think that it must be the experience of every surgeon in active practice to be frequently appealed to an account of the more or less permanent disablement of forearm, wrist, and hand which so often follows the treatment as generally practiced. Such deformity and disability have also in a number of instances led to litigation in which the reputation of the attending surgeon has suffered discredit. That the result of the usual treatment of fractures of the carpal end of the radius, even by the most experienced surgeons, is considerable deformity and consequent disability, is admitted by the best surgical authorities. I will read what some of them say on the subject. Hamilton, in one of the editions of his work on fractures, states that of ninety-two instances of fracture of the lower third of the radius, sixty-six could not be claimed to have been cured free from perceptible deformity or stiffness about the wrist-joint. In some of these cases examined by him after the lapse of from one to twelve years, the wrist- and finger-joints remained quite stiff.

Prof. Gross said that this fracture is "often followed by permanent deformity and impairment of the functions of the wrist-joint," and "that from three to six months always elapse before the patient will have anything like a good use of his hand and fingers, owing to the remarkable tendency, in every case of such injury, in the resulting inflammation to extend to the synovial membrane of the digital articulations and sheaths of the tendons."

R. W. Smith, of Dublin, remarks, "that difficulties attend the treatment of this fracture may be inferred from the variety of modes which have been proposed to counteract the peculiar deformity which occurs when the lower end of the radius is broken."

Bryant, of Guy's Hospital, asserts that "the wrist-joint rarely recovers its normal movement after this form of fracture, some deformity permanently remaining, of which the patient should be forewarned."

J. R. Barton said: "I do not know any subject on which I have been more frequently consulted than on deformities, rigid joints, inflexible fingers, loss of pronating and supinating motions, and on neuralgic complications resulting from injuries of the wrist and of the carpal extremity of the forearm, one or more of these evils having been left, not merely as a temporary inconvenience but as a permanent consquence." He also speaks of "the embarrassment which every practitioner has experienced in his attempts to obviate eventual deformity and to preserve the functions of the fingers and to restore the motions of the wrist and forearm."

Mr. Callender, of St. Bartholomew's Hospital, in an article on fractures injuring joints, alluding to the unsatisfactory results of such injuries, remarks that, "such results are frequently referred, in some measure at least, to the treatment which has been adopted, but it will not be difficult to show that a great number of these hurts must have a comparatively unfavorable issue, however good the management which is bestowed upon them; still there remain many cases in which the recovery is not so good as it might have been, if only the original injury had been properly determined, and the right plan of treating it properly carried out. From either of these considerations, no fractures, perhaps, require more careful examination than those of the carpal extremity of the radius, for neither is their precise nature clearly defined, nor yet are their unsatisfactory

after-consequences sufficiently, as a rule, impressed upon patients." The same authority states that there are in the museums connected with the London medical schools thirty-six specimens of various fractures of the lower end of the radius, all of which are, if united at all, more or less badly joined together.

The form of fracture which is so liable to occur at the lower end of the radius, and which has such marked characteristics, has been somewhat differently located by various surgical authorities. Colles, of Dublin, who is entitled to the credit of being the first to intelligently describe the injury, locates it at an inch and a half above the carpal articulation. Hamilton describes such fractures as varying in location from half an inch to an inch and a half above the articular surface. R. W. Smith, of Dublin, locates the fracture between one-quarter of an inch and an inch above the joint, and makes a remark, which my own experience will endorse, that it always appears to be higher than it really is. Dupuytren's observations fix the fracture even nearer to the joint, as from three to six lines.

Malgaigne remarks correctly that there may be slight variations in such estimates in accordance with the age and stature of the subjects, which influence the length of the bone, and also from some crushing of the lower fragment by the force of impact. He also notices that there will be variation in the appreciation of the exact position of the fracture, in accordance with the manner of measuring, as owing to the obliquity of the articular surface, the measurement upward from the styloid process, the distance may be one inch, whilst if measured on the inner side it may be but one-third of an inch, and if estimated on the back of the bone about twice the latter distance. The general understanding, however, of such measurment on the living subject has probably been estimated on the back of the articular edge of the bone, which is in the recent injury usually so tilted up as to be quite apparent. Prof. Gross gives it as his opinion that the injury is generally situated low down, within a short distance of, if not actually within, the joint, but is sometimes as high as an inch or an inch and a half above the articulation. Sir Astley Cooper locates the fracture at an inch above the styloid process. Nelaton's opinion is that in the immense majority of cases the bone is broken two-fifths of an inch from the end. Mr. Erichsen fixes it at half an inch.

With reference to the position of the fracture as described by the late Dr. John Rhea Barton, it will be noticed that he merely described, on hypothetical grounds, a fracture of the posterior articular edge of the bone, in which, as he expresses it, "a quite small fragment is broken from the end of the radius on its dorsal side," and is carried upward and backward with the consequently displaced carpus.

Practical experience of careful observers has not, I think, confirmed the observations of Barton. I have never been able to diagnose such a fracture with its accompanying displacement in the living subject, nor have I found it possible to produce it by any kind of violence that I could use on the cadaver. In this view I accord with Hamilton, who states that the fracture as described by Barton, has never come under his observation; and he believes that the description of the injury, which has so generally associated the name of the observer with fracture of the lower end of the radius is incorrect, and that Barton mistook for it the ordinary transverse fracture near to the articular surface of the radius, or possibly a fracture of its styloid process alone. After a number of experiments on the cadaver, with force variously applied, I have not been able to produce the line of fracture described by Barton.

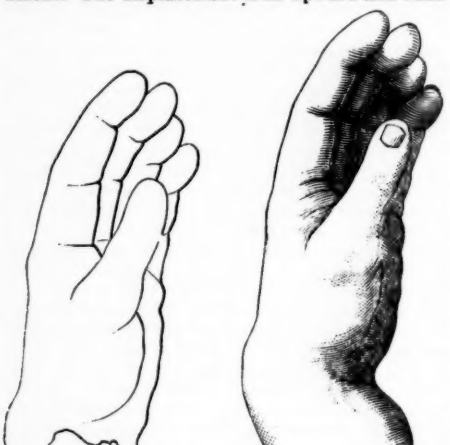
In this country it seems to be the habit of surgeons to incorrectly associate the name of Barton with the usual and very characteristic fracture of the lower end of the radius, an association that cannot be properly made. I am inclined to believe that the only form of fracture that he attempted to describe is one which for want of later surgical and pathological authentication remains as but ideal or mythical, and is not entitled to a separate recognition. If the name of Colles is not used to indicate the injury as ordinarily seen, it should be simply designated by its location as *fracture of the carpal extremity of the radius.*

I am convinced from my own observations upon the subject, which have been carefully made, that fracture of the lower end of the radius, which is attended with such peculiar deformity, and with which every surgeon is familiar, is almost invariably located between a quarter and three-quarters of an inch above the articular surface of the bone.

One of the reasons why the bone breaks so generally within a short distance of its lower extremity, may be found in the fact that its texture at that portion is almost wholly of cancellated tissue, the compact tissue nearly disappearing within three-fourths of an inch from the articular surface. Another cause of weakness is the loss of its cylindrical form, which best resists external force, and is spread into a triangular shape. The force which usually breaks the lower portion of the radius is ordinarily from falls, and is received on the upper part of the palm of the extremely extended hand, in a direction more or less from before backward. The bone is here curved with the concavity on the palmar surface, and the force is spent on the inside of an arch which inclines to fracture the most readily at the point of its greatest curvature on the highest part of the arch, which is about half an inch above the anterior edge of the articulation. When the body falls violently forward the hand is instinctively projected and receives the impact whilst in a state of extreme extension, and bends backward at the wrist-joint to such a degree that the force is communicated to the radius through the palmar carpo-radial ligaments in a direction almost transverse to the long axis of the bone. Such force would naturally incline to produce fracture in a transverse direction, and I am sure that the usual fracture is ordinarily so effected, rather than, as is generally asserted, by force applied in the long axis of the radius. I am inclined to the opinion that any force violently extending the wrist extremely backward is liable to produce the ordinary fracture of the lower end of the radius, and I have demonstrated that the fracture may be produced on the cadaver by such extreme and forcible backward extension alone.

Bouchut asserts, in his observations on luxations of the wrist, that in his efforts to produce dislocations of the radio-carpal articulation in the dead subject, he only succeeded in causing fractures of the lower extremity of the radius. Thus it is shown that an action of simple forcible leverage can cause the peculiar fracture, as well as the more direct impact of force, and may, in frequent instances, be an important factor in the production of the injury. The testimony of nearly all surgeons who have written upon the subject is that in fracture of the lower extremity of the radius the direction of the line of fracture is almost invariably transverse. Examination of by far the greater number of cabinet specimens of the fracture in the museums of this country and of Europe verifies the same observation. The fracture, it is true, is liable to vary in direction and other characteristics with any of the numerous causes which may produce it. Much comminution may occur as in a fall from a great height, when the extremity is thrown forward to protect the body, and I have seen an instance in which the lower end of the radius was much shattered by being crushed under the wheel of a heavy wagon.

Remember then the mechanism of this fracture. It may be described as a simple wrenching of the anterior carpal ligament which is too strong to be torn, hence the bone gives way instead of the ligament. The displacement is an upward and backward one of the lower fragment. The deformity is a depression on the palmar surface, and an elevation on the dorsal surface; this is known as the silver fork deformity. It is usually very characteristic, and was so in the case presented before the resident surgeon reduced the fragment. Displacement of the lower fragment may not exist at all, or it may be to the extent of complete separation from contact of the broken surfaces, varying with the amount of force appplied and with the retaining influence of the surrounding dense structures. The usual treatment of fracture of the lower end of the radius is by what is known as the Bond splint, which is a straight splint with a block on the end for the hand to grasp, and in such a position as to turn the hand slightly to the ulnar side.



I maintain that no crooked bone can be treated on a straight splint. See what the tendency of this splint is: it throws the lower fragment upward, which is exactly what we are trying to overcome. You can obtain good results with this splint if you will place a firm pad of lint or cotton under the end of the upper fragment to correspond with the curve of the radius, and a pad on the dorsal surface over the lower fragment. But the trouble in this is the pad becomes displaced, and slips forward, and throws the lower fragment upwards. You can always tell at a glance the deformities that follow the fracture of the lower end of the radius treated on a straight splint and fractures not properly reduced. The palmar surface is flattened, there is stiffness in the joint, and the hand has a very helpless expression. There is usually neuralgia, from pressure on the nerves, disturbed circulation from pressure on the vessels, and considerable disability of the hand. The first essential in treatment of fracture of the lower end of the radius is the complete reduction of the displacement. The reduction of the fracture can usually be thoroughly effected under anæsthesia, by *strong extension applied to the hand, associated with forced flexion of the wrist, and with pressure applied directly on the dorsal surface of the lower fragment.*

Unless vertical splitting or comminution of the lower fragment exists, the maintaining of partial flexion of the wrist, with pressure of a pad on the dorsal surface of the lower fragment will prevent return of deformity. In the treatment of fracture of the lower end of the radius it is essential that proper allowance be made for the curvature of the anterior or palmar surface of this part of the bone. This is insured in the splint which I have devised, which follows correctly the radial curvature; and the fixing of the thenar and hypothenar eminence of the hand in their moulded beds, maintains the splint immovably in its correct position with reference to the radial curve. To neglect of complete primary reduction of the displacement of the lower fragment, and to inefficient restoration and retention of the normal radial curve, are due the frequent unfortunate sequences of this fracture. This patient was treated by replacement of the fragments by the manœuvres described, and his arm put upon this moulded splint of metal. The splint is made of copper, so as to be readily conformable by bending to suit the peculiarities of size and form of forearms. The series of little pointed elevations along the edge is for the purpose of keeping the bandage from slipping. It is tinned to prevent oxidation. The splint will usually fit the forearm so accurately that but little padding will be

required, and a piece of lint, or of cotton or woolen flannel is all that is necessary for its lining. No dorsal splint is needed, but, as before

mentioned, a small pad will, in most cases, be required over the dorsal surface of the lower fragment. For retention of the splint, an ordinary bandage, two inches and a half to three inches wide, is all that is necessary. This man was dressed by Dr. Barber. I will remove the dressing and see if it has been properly reduced. I see that the deformity is overcome. I now feel that the arch of the radius is perfect, which is the test of the proper reduction. The splint will now be re-applied, and this man can go about and attend to his business. One of the advantages of this treatment is that the patients can attend to their business without much inconvenience. I have had such cases in private practice; one, a bookkeeper, continued writing; another, a bicycler, who took a "header" and produced this fracture, went on with his riding after the fracture was dressed; and also sewing-women who could continue their occupation with very little difficulty. This fracture is very common. I came into this hospital one slippery morning and found six large, stout women sitting in a row, suffering from fracture of the lower end of the radius. They had fallen upon the ice and sustained this injury, which is, probably, the most frequent of all fractures.

Anal Fistule.

This woman is suffering from an anal fistule. An anal fistule is a fistulous tract in the ischio-rectal space, which is the space situated between the rectum and the tuberosity of the ischium, and is filled with adipose tissue. An anal fistule is always the result of an abscess situated in this space, which has opened through the skin or into the rectum, or perhaps in both directions. When a fistule has two openings, one external and the other in the bowel, it is called a complete fistule. When there is an external opening, but no internal one, it is called a blind external fistule. When there is an internal opening, but no external, it is called a blind internal fistule. This distinction is unimportant, because a fistulous tract of long-standing has usually both openings. Blind internal fistules rarely exist; I do not remember ever to have seen one. The error in supposing that external fistules have no internal orifice is due to the fact that the internal opening is not sought for in the right place. It is looked for too high up in the rectum; it is universally situated just above the external sphincter, where your finger will feel a little depression. I pass this probe into the external opening, and you see that it emerges inside just above the sphincter. I now pass a grooved director along the same tract, and with my finger bring the end out at the anus. With a scalpel or bistoury passed along the groove, I cut through the sphincter and other tissues, and thus convert the fistule into an open wound, thus liberating the director. The operation is simply to divide the tissues between the external and internal openings. This woman has also an anal fissure, which is a chronic linear ulcer in one of the folds of mucous membrane, kept open by the continuous action of the sphincter muscle. Anal fissures are curable by putting the parts at rest and then allowing cicatrization to take place. This can be done by stretching or dilating the sphincter with my thumbs in the rectum. This procedure causes slight laceration of the mucous membrane at the seat of ulcer, and paralyzes the sphincter so that granulation will follow and the ulcer become healed. Anal fissure gives excruciating pain *after* the passage of a stool, because of the spasmodic contractions of the sphincter. Hence, you can nearly always make a diagnosis of anal fissure by this occurrence of severe pain *after* defecation.

Having now laid open the fistule, I pack it with a tent soaked in carbolized oil. Having stretched the sphincter and scraped the fissure with my finger nail to get a new surface upon the ulcer, I shall expect the symptoms of anal fissure to disappear.

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Discussion on Typhoid Fever. (*See pages* 101 and 132.)

Reported by G. Betton Massey, M. D.

Dr. J. C. Wilson, in opening the discussion, said: "The paper of Dr. Hollopeter is very interesting and suggestive. It touches upon or suggests almost every important clinical problem relating to this disease. Its free discussion would be impossible in one, or indeed in many evenings. Two or three points call for special consideration:

"First. The typical temperature-curve, and its variations. The well-known course laid down by Wunderlich as a standard, is met with perhaps less frequently than strongly-marked variations. Nevertheless, a knowlege of that course is the key to the understanding of the variations from it.

Wunderlich, after describing the course of the first four or five days, lays down the law that every case which does not conform to this temperature type is not typhoid fever. This dictum has been the source of manifold errors in diagnosis. No more fallacious statement could be made. Cases of undoubted typhoid fever constantly occur, in which the range of temperature fails to conform to the typical curve, not only in the beginning of the attack but throughout the whole course of the disease. In fact, cases sometimes occur the nature of which is fully established by the complexus of symptoms and the existence of local epidemics, in which the temperature remains throughout even *sub-febrile*. The singularly labile temperature in this disease, rising and falling, as it does, under very slight disturbing external influences, makes it a matter of surprise, not that the temperature is not always typical, but rather that it ever closely conforms to the type.

"Second. The inversion of the diurnal range, of which Dr. Hollopeter has given two instances, is not common. I have seen cases of it, to which I will briefly refer. I am not aware that any adequate theory of this curious clinical phenomenon has yet been advanced.

"Third; house epidemics. The second part of the paper, which considers the details of this curiously-circumscribed and localized outbreak, is very interesting and important. It is by the study of such house epidemics, that a true insight into the etiology of the disease is to be gained. I do not agree with the author of the paper, in ascribing the disease in the infected house to the percolation of waste-water, through the cellar-wall, from the adjoining premises. In order to establish this theory, it would be necessary to show, first, that such percolation, if capable of producing this disease, had not been going on for an indefinite time prior to the attack; and second, that typhoid fever had existed in the neighbor's house, or at least that the dejecta of typhoid patients had been thrown into the pit from which the drainage into the cellar ran. These facts have not been shown. On the other hand, it appeared clear enough that the first case, the young woman, who had come home sick from another house, had introduced the disease. An investigation of the house and neighborhood from which she came, would doubtless shed light upon the subject. House epidemics are numerous in Philadelphia. Certain houses, however, seem to be the abiding place of the infecting principle, seeing that cases occur in them from time to time during a series of years."

Dr. E. T. Bruen: "I have been very much interested in Dr. Hollopeter's paper, and also in the remarks of Dr. Wilson. I agree particularly with the portions relating to the contagion. Two cases recently seen by me illustrate this: a washerwoman took home the clothes of a typhoid-fever patient. Within a week, her two children drooped and became feverish. They were taken to the Children's Hospital and one died there with no autopsy; the other was taken home, where it died, and I made a post-mortem examination. The typical conditions were present. No other cause was known.

"I am also interested in what Dr. Wilson has said about alterations of temperature from slight causes. We notice the same thing in diseases of the liver, in which cases the thermal wave fluctuates with the ingestion of food. If we admit these causes, I think we can readily admit psychic influences in the same role.

"In diagnosing typhoid fever, it is to be distinguished from malarial fever and catarrhal fever. Malarial fever is *sui generis*, and can be controlled in this latitude by quinine. I believe that malaria will modify the initial stages of typhoid fever. Thus one of the groups of cases called typho-malarial takes its name. Neglected malarial fevers form another group of so-called typho-malarial fever, which is not a disease *sui generis*.

"I have seen many cases of mild typhoid fever—the so-called typhoid ambulatorius. Throughout, these cases have shown a temperature of 100°, not over 100°, but I would not make the diagnosis of typhoid fever if the temperature after the fifth day fell below 100° in the evening.

"Catarrhal fever is characterized by peculiar weakness, with various catarrhal conditions of lungs and bowels. The temperature runs from 99° to 100°, and is at times almost normal. Such cases should be classed as catarrhal fever, and are very similar to the specific forms of influenza. They may be recognized by the fact that the temperature is very irregular, and it is impossible to control this feature by quinine. I think these are the cases which have often been confused with mild typhoid."

Dr. Baldwin: "Dr. Levick sometime ago published a paper in which he spoke of a family predisposition to typhoid fever, as well marked in some families as that of phthisis. I should like to ask Dr. Wilson if he has noticed any cases of like character."

Dr. B. Trautmann: "Niemeyer speaks of inverse temperature in typhoid fever, and says that these cases end, generally, fatally. This seems to disagree with the statements made here to-night. I have at this time a case showing this curve, in which a hemorrhage of the bowels followed this morning."

Dr. Kevin: "I have also a case now under treatment showing inverse temperature."

Dr. Arthur V. Meigs: "With regard to the etiology, I do not think Dr. Wilson's position is well taken. In the face of the authority of Murchison, that typhoid fever may arise *de novo*, it seems to me hardly fair to assume the germ theory as proved, although the medical mind seems at present to be inclined in that direction. Typho-malarial fever has always seemed to me a bad name, for it misleads; it means, in its proper sense, a hybrid, both malarial disease and typhoid fever co-existing in the body at the same time."

Dr. W. A. Edwards: "In the case of the young man under my care whose temperature presented the peculiarities spoken of, a diagnosis of double quotidian was made. On the eighth day, signs of typhoid fever set in, and lasted four weeks; then again there was a typical double quotidian. If the case had not been so diagnosed, it would have been put down as a case of typhoid fever with inverted temperature. This, with other cases, I published in the MEDICAL AND SURGICAL REPORTER, November 17 and 24, 1883, and mention it to-night to call attention to the fact that all cases of inverted temperature in typhoid fever

are not due to the typhoid entirely, but frequently to a complication, this complication occasionally being almost unrecognizable except for its effect on the temperature."

Dr. Wilson: "A clear comprehension of the mode in which typhoid fever is propagated from previous cases, by means of a specific infecting principle, is of the utmost importance. Murchison, it is true, held that it might arise *de novo*. Nothing in the literature of the subject is more brilliant than that great author's advocacy of this view, but the student of the subject knows that it was asserted in Murchison's day, with a vigor scarcely inferior to that with which it has been defended here, with more success. To Dr. Wilson Budd, of Bristol, is due the credit of showing that Murchison's view was untenable. To-day it is no longer entertained."

Dr. Meigs: "I did not pretend to deny that a single case of typhoid fever may be the focus from which any number of others may arise. I merely contended that in the face of Murchison's opinion that the disease may arise *de novo*, we should be careful how we assume as proved the germ theory."

Dr. J. Solis Cohen: "I do not rise to speak directly to the subject of the paper, as I do not see typhoid fever except in hospital practice. Many years' observation has convinced me that sudden rises of temperature in typhoid fever, as in other diseases, are often due to obstruction of the bowels, even though diarrhœa may exist. A small dose of castor oil will usually quickly relieve the bowels and reduce the temperature. The ordinary milk diet is then to be modified by the addition of lime-water, or by substituting boiled milk for cold. My residents have for years had general instructions to pursue this plan without awaiting my daily visits.

"The family epidemic recorded, reminds me of a similar one in a German family, the members of which were distributed to several hospitals, three of them coming under my own care. A marked local epidemic occurred among the sailors on board the Russian war vessels which, several years ago, were lying off the wharf at Kensington, some sixty of whom came under my care, with the most typical demonstration of the true typhoid curves that I have ever seen. The temperature charts looked as though they might have been copied from a text-book. The cause, in these instances, was the drinking of water from the Delaware river, which the sailors, following an old custom, dipped from the side of the vessel to within a few feet of the open outlets of sewers.

"I was very much interested in the story of the poor washerwoman's family. Our duty, in the presence of contagious disease, is very clear, and is too much neglected by physicians. We should not allow our patients to send clothes out to be washed until they have been thoroughly disinfected. Indeed, rather than subject a family to contagion, let the clothes be burned. Many a poor washerwoman in this city brings typhoid fever, diphtheria, and other diseases, to her household, through the carelessness or indifference of her customers."

Dr. Hollopeter, in closing the discussion, said: I had felt a certain uneasiness in presenting my cases of *inverse temperature*, as I could obtain but little authority for the same, yet I have recorded the simple facts, and am glad to learn that other members have also noticed similar cases. In a future paper I hope to give more of the literature of the subject. In answer to Dr. Wilson, as to the causation of the house epidemic, I would state that Mary, the first to take sick, was, at the time, not living at home, yet she frequently came home for a few days at a time. The family she was working in were all healthy.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

At the meeting November 5, 1884, Dr. H. C. Wood made some

Remarks upon Chronic Contracted Kidney with Normal Urine, Including Acute Gouty Dementia, with a Perforating Recto-vaginal Ulcer, and Death from Sudden Pulmonic Œdema.

Saying: Mrs. L., whose case forms the basis of the present article, was a very intelligent lady, about forty years of age, the mother of five children, of gouty ancestry. At regular intervals of four years she was accustomed to have very violent acute attacks of gout or rheumatism, associated with great systemic disturbance and depression of spirits. As the last gouty sickness was in the early spring of 1880, she was in the spring of the present year in great fear of another attack, and an attempt was made under the direction of her medical adviser, Dr. Tomlinson, to ward off such sickness by careful diet and free horseback exercise. For the early notes of her case, I am indebted to Dr. Tomlinson. An exposure to cold during the night of April 20, was followed by severe coryza, vague pains, and great hebetude, with a very pronounced desire to sleep. Even when moving about she seemed unable to keep her eyes open. Under treatment she improved temporarily. Dr. Tomlinson writes concerning this period: "I could discover nothing wrong with the urine, which she passed in usual quantity. A week later she began to have difficulty in expressing herself; she would use irrelevant words and then correct herself; her gait also grew uncertain, and in walking she would pitch forward as though she were going to fall. April 28, Mrs. L.'s mother died; Mrs. L. was greatly shocked, and rapidly became worse; she was greatly depressed, lachrymose, hysterical, had hallucinations, and ceased to recognize those around her. She lost her appetite, and became constipated. The uncertainty of movement now affected the arms, and there was great failure of memory. Her symptoms continually deepened, the speech became more and more incoherent, until it was a confused senseless jargon. She now refused food, and finally staid in bed in a state of perpetual stupor. The tongue was heavily coated, the breath very offensive. There was no elevation of temperature, or pains, or local soreness."

I was first called to see Mrs. L. May 8; I found her in bed in a sort of stupor, out of which she was with difficulty wakened at all. Getting her partially aroused, I ordered the nurse to put on a wrapper; then commanding and leading the patient, succeeded in getting her to the head of the stairs, then down stairs. It was necessary to

hold her very forcibly, as every few minutes her knees would seem to give way, and she would "flop" to the floor. All this time she said nothing other than incoherent protestations. When she finally was in the parlor I upbraided her loudly and severely for her dishabille and general appearance. On asking her if she was not ashamed of herself, she said she was, and that she had better go up stairs and change her clothes. On my acquiescing, she stood up, and taking the hand of her nurse, walked upstairs, dressed herself with assistance, and came down, recognizing people, but saying very little. I left her eating her breakfast. Her urine was examined at this time; it was loaded with uric acid and urates, although she had been eating very little, had a specific gravity of 1024, and contained no tube-casts, and not the faintest trace of albumen.

She came to the city May 11. She was now completely demented, knowing no one and not recognizing in any way her surroundings. The pupils were contracted and immobile. She ate no food except milk, which was forcibly given her at regular intervals. Much of the time she lay in a stupor in bed; then she would have spells of wandering restlessness; again, distinct maniacal outbreaks, accompanied by violence and indecent speech, or sometimes attacks of muttering delirium. The tongue was brown, dry, coated to the last degree. The teeth were loaded with sordes; the breath horribly offensive; the bowels were obstinately constipated. She was treated with purgatives, quinine, chloral, and morphine when excited.

During these days there was general tenderness, so that whenever she was taken hold of roughly she would scream out, even rousing from a stupor. There was also on movement distinct pain not located in the joints, but seemingly in the muscles. There were very bad hemorrhoids, and at times the patient lay stupid but moaning, with knees drawn up as though there was abdominal pain. The pulse was quick, never much under a hundred, small and feeble rather than strong. Her mental condition grew worse, she took no note of anything, had to be catheterized, etc.

By May 16, the general tenderness had become very pronounced; the pupils were dilated and movable; the intelligence somewhat improved, in that she began to take notice. Salicylates and digitalis were at this time being used freely. On 17th, severe diarrhœa with involuntary passages set in; also the pulse altered suddenly its character, becoming excessively irregular, from 110 to 150 per minute, with beats of all sizes and rates, and many complete intermissions. General tenderness very marked. Auscultation of the heart showed the first sound very weak over the right base; at the left apex the first sound was very weak, the second decidedly accentuated. Over the middle cardiac region the sounds were singularly confused, with a peculiar watery and occasionally grating sound, "believed to be cardiac friction, but no clear positive to-and-fro friction rale." [Note at the time.] A blister was applied over the head and one over the heart.

May 18, menstruation had been established; the pulse had become perfectly regular, 100, and the peculiar middle cardiac sound less distinct. Her mental condition so far improved that she indicated when she desired to pass water, but she could not give a coherent answer to the simplest question.

On the 20th, she, when roused, answered simple questions with some rationality. Severe diarahœa again manifested itself, with involuntary passages, and lasted many days, indeed, off and on, almost to the end; remedies simply kept it in check. There were no maniacal outbreaks, and a slow but progressive improvement in her mental condition began very distinctly directly after the violent diarrhœa of the 20th. The first change was in the recognition of her husband; then when she had a desire to stool, she would insist on getting out of bed to the commode, although she never said why she got up. Then she resisted food and medicine, clearly because she had a will not to have them. On the morning of the 20th she took food herself, knew where she was, and wondered greatly as to the way in which she had got there, having no memory of past events.

June 23 it was first noticed that something was wrong with the vaginal discharge, but a vaginal examination failed to detect any abnormality. On the morning of June 25, fæces were plainly passed per vaginam, and there was discovered a perforation of the recto-vaginal wall very low down, sufficiently large to admit easily the whole forefinger into the rectum. The edges were soft and not well defined. There was no hemorrhage, local swelling, or pain during the formation of this opening, and it was not distinctly sore.

The mental condition of Mrs. L. continued to improve until the first of June. At the same time her tongue cleaned and her breath became sweet. June 1 she was entirely rational, recognized her surroundings and friends, servants, etc., in their proper relations. She spoke very sensibly about her own illness. The memory was very much improved, but by no means normal, and there was an absolute lack of power of mental exertion; but the only thing a casual observer would have noted as peculiar was the character of her voice, which remained very unnatural.

The first indication of a relapse occurred about the first of June, in a renewed coating of the tongue; then she began to talk irrationally at night, and her memory rapidly to fail. Then a tendency to drop or elide words from her sentences came on and was very pronounced. Her talk in the night began to be irrational and incoherent. At times she was quiet during the day, at other times very restless. At night she was very wakeful and restless, getting out of bed, wandering about rooms, etc. Much of the time she had an almost uncontrollable desire to pick at her nose and genitals; some days she refused food, others took it. The pulse ranged from 100 to 120, and her physical strength distinctly increased.

From this time onward her mental state deteriorated rather than ameliorated. She lost power of knowing those about her, although she still recognized her husband; the memory was entirely lost; in a word, she was in a condition of almost complete dementia. July 18th the breathing became suddenly accelerated, and some fine subcrepitant rales were heard posteriorly; on the morning of 18th her breathing grew much worse;

the whole upper lobe of right lung was full of fine crepitation, the left lung also containing rales. This continued for two days with some slight dulness of percussion on left apex, and then gradually subsided. Some days after this she had an equally sudden attack of œdema of the feet. June 24, she was taken about 11 p. m. with violent dyspnœa, accompanied by fine crepitation anteriorly and superiorly in both lungs, and almost complete absence of breath sounds over the posterior lobes. The dyspnœa steadily increased, and she died asphyxiated after twenty-four hours of struggle.

Autopsy.—Kidneys large, plainly in the early stage of chronic interstitial nephritis. Other abdominal organs normal. Heart somewhat hypertrophied; valves normal. Much excess of fluid in pericardium, but no exuded lymph. Lungs highly œdematous; considerable peritoneal as well as pleural serous effusion.

Brain.—Basilar arteries; walls very much thickened, sufficiently so to distinctly interfere with lumen; smaller arteries showing signs of similar endarteritis; the upper and to some extent the basal sub-membranous spaces everywhere distended with exuded fluid; fine vessels of the membrane somewhat congested; a very little lymph in some spots in the membranes. Brain substance very anæmic; the convolutions appeared shrunken; consistence normal, no spots of softening or macroscopic changes to be detected; microscopical examination of the convolutions failed to demonstrate anything abnormal, although the cells were perhaps more granular than normal.

There are certain points about this very remarkable case to which it may be worth while to direct the attention. The cause of the dementia cannot positively be asserted; but I am very strongly inclined to think that it was, at least, in part due to gouty irritation.

It seems to me well established that gout is capable of causing almost every form of insanity; indeed, insanity is only an increase of the mental conditions frequently seen in lithæmia. Carrol in 1859 said, "gouty mania is occasionally seen," and in 1875 Dr. P. Berthier (*Des Nevroses Diathesiques*, Paris,) published a collection of forty-six cases of nervous disease attributable to gout: one, hallucinations; one, migraine; four, tetanus; three, chorea; one, hypochondria; seven, epilepsy; one, paralysis, and twenty-six of mental affection including in these dementia, melancholia with stupor, mania. Although in some of these cases the evidence is not at all positive that gout was the *materies morbi*, yet in others the relation seems to have been clearly made out.

(*To be continued.*)

EDITORIAL DEPARTMENT.

PERISCOPE.

The Treatment of Lupus by Erasion or Scraping.

Dr. J. Herbert Stowers having obtained his most satisfactory results from these methods, thus writes about them in the *Brit. Med. Jour.*, Jan. 3, 1885:

The process of erasion advocated by Volkmann is carried out by means of a small hollow and elongated spoon, or scoop, with a moderately sharp edge, set in an ivory or bone handle. The special advantage is, that when the scoop is applied with considerable force, all the diseased tissue, or cell-growth, which is exceedingly vascular and friable, immediately breaks down, and is removed, while the healthy surrounding structures of the skin are too dense and fibrous to be included in the operation.

Those who have had experience of this method, will concur as to the remarkable way the soft, spongy, boggy tissue yields to the scoop, and how much more certainly can the extent and depth of the disease in this manner be estimated. All the cases I have treated thus have been of long duration, and the new growth in each has existed over an extensive area.

The operation should not be undertaken except with the aid of an anæsthetic, for much of its after success depends upon the complete removal of every tubercle, and, consequently, occupies a considerable period of time. With so vascular a structure also, much hemorrhage results which should be entirely arrested before the solid nitrate of silver is used. I repeat—for it cannot be too carefully noted—that thorough eradication of the abnormal growth must be secured before the scoop is laid aside. In several instances I have operated upon large masses of disease situated over the great vessels of the neck, and, despite the force required, I can truly assert that, with even moderate care, no danger occurs of wounding them.

When the process of scraping is completed, and the hemorrhage arrested (local depletion being, doubtless, an aid to results), the serous discharge escaping from the wounds should be carefully soaked up with clean blotting-paper. Attention to this latter point will obviate the risk of the dissolved caustic running over the surrounding healthy integument, and so adding needlessly to the suffering of the patient.

It is necessary that the nitrate should be pushed deeply into the holes and interstices left by the instrument; in fact, it should be made to burrow into the tissues quite as extensively and deeply.

Considerable inflammation of course follows, which assists ultimate absorption; but the intensity of the pain does not last nearly so long as that attending the use of other caustics.

The parts should be dressed with lint well saturated with carbolized oil; the next day more oil being allowed to run under the dressing. The

second day after the operation, when suppuration has commenced, fresh carbolized oil-dressings should be applied, and so on daily. So severe is the smarting if water be used, that it is preferable, until the discharge is considerable, to cleanse the part by gently rubbing with lint dipped in olive oil, to which a drop or two of carbolic acid may be added. Later, when the sloughs are separating, a weak carbolic acid lotion is advisable for the same purpose, and may with advantage be used with a syringe.

In the cases under my care, which have been, so far, attended with permanently good results, it was necessary to repeat the operation at intervals varying from six to eighteen months; indeed, in some, several repetitions have been compulsory. But I contend, and that very strongly, that, if every new tubercle be immediately attacked, the instances will be few and far between, if any, in which, with the addition of appropriate internal constitutional treatment, the tendency to new development will not be outmatched.

The destructive results of this rebellious affection are too well known to require a word more in this direction; suffice it to say that, in five cases, at least, I have secured noses marked now with a relatively limited scarring, which would otherwise (if left without local treatment) have broken down by extending disease and secondary ulceration, to the production of irremediable and hideous deformities.

The natural tendency to recur must never be accepted as sufficient reason for not contending again and again with the disease until that age or condition of health be reached which will secure lasting and permanent immunity.

I would recommend, not less strongly, that any neighboring tissue, while suspicious in character, though not readily breaking down under the scoop, should be freely submitted to multiple punctiform or linear scarification, combined with a liberal use of the solid nitrate of silver.

Three cases alone, taken from my note-book, will suffice to illustrate practically the value of the above treatment, and with these I conclude:

Case 1. Emily D., aged 20 in July, 1883. Extensive lupus of nose. Residing at Chislehurst. Duration eight years. Four operations under ether: one in 1881; two in 1882; one in 1883 (February). No return up to present date. Cicatrices well formed and healthy.

Case 2. Anne K., aged 27 in 1877. Residing in Bedfordshire. Extensive lupus of cheek. Duration twenty years. Two operations under ether: one in January, 1881; one in 1882. No return up to present date. Parts look quite healthy.

Case 3. Elizabeth C., aged 19 in 1880. Lupus of nose. Duration nine years. Three operations during 1880 and 1881. Perfect scar-tissue now remaining. No evidence of disease returning.

Nerve-stretching for Sciatica.

Dr. A. B. Atherton gives the following instructive case in the *Canadian Practitioner:*

1882, September 8. G. E. G., aged 40, male, minister, not generally very robust. One or two members of family have had phthisis. Seven years ago suffered for several months from sciatica in left limb. Also four years ago had an attack of pneumonia or pleurisy, or both, which laid him up six or seven weeks. Eighteen months ago sciatica returned, and in spite of all sorts of remedies, it has grown worse, till of late it has interfered very materially with his ministerial duties. Morphine relieves the pain of severe paroxysms, but it causes so much nausea and vomiting that he dreads its use. Rest relieves, and motion increases, the pain and soreness. As a rule he is able to sleep pretty well at night, but he is wakened when he attempts to turn in bed. He has lost more than twenty pounds of flesh, weighing now less than 120. When a paroxysm of pain occurs, he is often troubled in passing water. Pain is most severe at point of exit of nerve through greater ischiatic foramen, radiating from this upwards over side of pelvis and down thigh. Also often feels pain in calf of leg and foot, accompanied with numbness and coldness of part. Has worn, of late, a chamois skin on the left limb to protect it from the cold. Has used cane in walking for some months, and leans considerably to right side when doing so. Has been troubled very much with dyspeptic symptoms since his illness.

On examination there is found considerable wasting of limb in its whole extent, the calf and thigh measuring one-third of an inch less than their fellows. Also muscles are soft and flabby. Tenderness complained of along line of upper part of nerve. Bowels always regular.

3 p. m. Operation. Chloroform given. Incision made from over lower border of gluteus maximus downwards, and a little inwards, four inches in length. The long head of the biceps was thus brought into view, and on turning this aside the sciatic nerve was reached. I now hooked my finger beneath the latter, and gave it two or three vigorous pulls from both above and below. There was a sensible yielding of the nerve in its lower part, but little or none in the upper.

Carbolic acid and alcohol (1 to 10) now applied freely to raw surfaces, and horse-hair put in for drainage. Silver and catgut sutures used and carbolized gauze and salicylic silk applied as a dressing.

September 9. Slept several hours last night without opiate. Feels very little pain, and he thinks he can move more easily than before operation. Pulse 88; temperature 99.8°.

September 11. Doing well. Appetite good. Pulse 80; temperature normal. Dressing changed under carbolic spray this afternoon. Horse-hair removed from wound. Only a slight bloody discharge on gauze.

September 12. Expresses 'himself as 'more free from pain than for a year past. Bowels have moved regularly since operation. Pulse 76; temperature 98°.

September 15. Doing well. Pulse and temperature normal. Wound again dressed. All sutures removed but three. Wound about healed. Adhesive plaster and dry dressing.

September 17. Remaining sutures removed. Wound healed. May get up and dress and lie on couch during day.

September 19. Since getting up, he feels some soreness all along back of limb, as if a "cord had been strained." Walks about, however, with the aid of a cane, and feels little, if any, of old pains.

October 9. Some soreness complained of still along course of nerve, but otherwise is doing well. Has gained six or eight pounds since operation, and walks much more erectly than before.

October 25. Returned home to Annapolis, Nova Scotia, to-day. Soreness along line of nerve is nearly all gone.

1883, May 6. Patient called to see me while on a visit to Fredericton. Has no appreciable halt now in his gait. Weighs 135 pounds. Says that he occasionally feels slight pain over left ilium, but does not mind it. Limb is now same size as the right.

Koch on the Comma-Bacillus.

The *London Med. Record* tells us that Dr. Koch has lately published a critique of the latest opinions on the comma-bacillus, in the *Deutsche Med. Wochensch.*, No. 45. In the first place, Koch especially insists, as on previous occasions, that our opinion about any particular kinds of bacteria must not rest upon one-sided observation of certain morphological characters only, but must be formed from the consideration of their whole properties, biological as well as morphological. A particular species of bacteria is only characterized as such by the sum-total of its properties, and it can be diagnosed only with reference to its whole behavior. Our investigations should be undertaken with the full consciousness of the indispensable necessity of this postulate, and under the absolute guidance of the methods employed, if we venture on the difficult question of the relationship of the comma-bacilli. Unfortunately, this cannot be said of investigators so far. It may be remembered, from the reports of the Natural Science meeting at Magdeburg, that Dr. Klamann alleged that he had found in cholera nostras similar bacilli and spirilla to those of Finkler and Prior. Klamann sent preparations, partly from dejections, partly from cultivations, to Koch, and neither this investigator nor other microscopists have been able to find anything like curved bacilli or spirilla in them.

The so-called comma-bacilli found by Lewis in the saliva, and long known to Koch, are longer, slenderer, and more pointed at the ends than the cholera-bacilli, and, when not too deeply stained, appear less dark at the ends than in the middle. But more important than the morphological differences are the biological. For, unlike the cholera-bacilli, these bacilli of the saliva do not develop in neutral or weakly alkaline cultivation-fluids, and the distinction between the two kinds is thus easily made.

Drs. Finkler and Prior are reproached with having entered on their difficult problem with insufficient knowledge and preparation. The fact that their cultivations were made on potatoes or on moist linen instead of on gelatine, deprived them of the particular advantage of the latter method, viz., an assured separation of the different varieties by successive cultivations; for one individual bacterium cannot be thus dealt with, but only a majority of different bacteria. The potato-culture affords no protection against the predominance of other kinds, which thrive very well by this method. Later impurities may also have occurred, and there is no guarantee that the ultimate appearances are due to the original inoculation.

Moreover, the ideas of Drs. Finkler and Prior on bacterial spores are diametrically opposed to our knowledge of bacteriology, because they regard the stained ends of the bacillus as spores, instead of looking for them in the unstained middle portion. On these and the above grounds, their assumptions regarding further conditions of development are devoid of a firm basis.

A cultivation sent to Koch by the above observers as "pretty pure," and obtained from "decomposed dejecta," showed four different kinds of bacilli on cultivation in gelatine. Of these, the individuals of one kind only were slightly curved or citron-shaped. On drying and staining, they presented a certain resemblance to comma-bacilli, but were on the whole plumper and larger, and developed more energetically both in gelatine and in potatoes. The separate colonies in gelatine were of an uniformly round shape under a low magnifying power, presented a finely granular appearance, and quickly fluidified the gelatine for a good distance round. The colonies formed by "cholera-bacilli," on the other hand, are not uniformly round, but have a zigzag periphery, are bright in appearance, of a long funnel-shape, and do not fluidify the gelatine like other bacteria. Similar differences are found in cultivation experiments in test-tubes. On potatoes, the bacteria of Finkler and Prior developed rapidly at a temperature of between 17° and 19° C., forming a pale yellowish-grey mucous mass, and the potato appeared white at the periphery of this. "Cholera-bacteria" do not grow in potatoes at this temperature, but only in a proper apparatus, where they slowly develop to dark-brown colonies.

Koch is in doubt as to whether the above bacteria originated in the intestine, and not rather in the decomposing dejecta and fluids after death. In preparations from fresh dejections only the ordinary bacteria were found, but no comma-bacilli.

Three cases of cholera nostras (two of which were fatal) and one case of arsenic poisoning (which succumbed on the tenth day) were most carefully examined by Koch, but with negative results. Moreover, hundreds of separate observations, recently made at the Sanitary Institute of Berlin on dejections from healthy and diseased persons, saliva, and buccal mucus, have never afforded the true "comma-bacillus."

Comma-bacilli, says Koch, are specific bacteria, belonging exclusively to cholera Asiatica.

In connection with the experiments of Rietsch and Nicati (vide *Berliner Klin. Woch.*, No. 35) a very diluted pure culture—hardly the hundredth of a drop of the culture fluid was used—was injected into the duodenum, without tying the ductus choledochus. With few exceptions, the animals died after a day and a half to three days. The mucous membrane of the intestine was reddened; the contents were watery, colorless, or slightly reddened, and at the same time flocculent. The comma-bacilli were found in the intestinal contents in a pure culture, and in extraordinary quantity. In other words, the same appearances existed as after fresh cholera. A simultaneous intoxication from poisonous products, which might be present in the culture fluid used for injection, is excluded by the smallness of the quantity taken.

The Action of Disinfectants on Carbuncle.

Professor Perroncito (*Annali Univ. di Med.*, July, 1884), examining the best means for disinfection for cattle-trucks, especially with regard to carbuncle, recommended in 1881 a 5 per cent. solution of sulphurous acid. To this the railway authorities objected, as it was found to damage their property, and further experience showed that, while it destroyed the virulence of the bacilli, the spores were unaffected. Hot water, chlorine, sulphurous acid, and hyponitric acid gases were tried, but were given up as expensive, inconvenient, or inefficacious. Professor Perroncito then made a series of careful experiments to determine the best and most active disinfectant, especially with regard to the bacillus and spores of bacillus anthracis. He found the following results:

1. Solutions of from 5, 10, or 20 per cent. of chloride of sodium had no influence on the spores or bacilli, the bacilli even developing spores freely in a 5 to 10 per cent. solution.

2. Solutions of carbolic acid, 1 per cent., destroyed the virulence of the bacilli, while the spores resisted a 10 per cent. solution.

3. Spores resisted a warm saturated solution of salicylic acid, and a 50 per cent. alcoholic solution. The bacilli perished in a cold saturated solution after five minutes.

4. Carbolate of soda, 5.5 per cent., killed the bacilli, but not the spores.

5. A saturated watery or alcoholic solution of thymol killed the bacilli, but not the spores.

6. Chlorine gas, even after seven hours' action, did not give complete disinfection, but chlorine water killed the bacilli in five minutes, and the spores in an hour and a half. The chlorine water must be freshly prepared. The method of Vitali is the best. Three kilogrammes of chloride of lime are mixed with 100 litres of water; six litres of sulphuric acid (1-5 water) are then added. Sulphate of lime is precipitated, and the chlorine formed is dissolved in the water.

7. Bromine destroys the virus liquid better than gas.

8. Sulphurous anhydride kills the bacteria in less than twenty minutes, but after 50 hours' exposure the spores are not hurt.

9. Saturated solution of permanganate of potash does not kill the spores, even after 52 hours' exposure.

10. The spores, after being kept for eight days in a solution of sulphophenate of zinc, retained their virulence.

11. Sulphuric acid, diluted to 1 per cent., added in equal parts to anthrax liquids, destroyed the bacilli in less than 15 minutes, while the spores resisted a 5 per cent. solution for more than seven days, and a 15 per cent. solution for more than 17 hours. The virulence of the spores was neutralized by 5 per cent. solution when in contact with them for 11 days.

12. A 4 per cent. solution of sulphate of iron did not kill the spores in six days, nor did a 20 per cent. solution of sulphate of copper in four days, nor a 4 per cent. solution of sulphate of zinc in 13 days.

13. A 4 per cent. solution of pyrogallic acid left the spores unaltered after six days' contact.

14. Very numerous experiments were made with 1 per cent. and 1 per thousand solutions of corrosive sublimate. Solutions of 2 per cent. killed the spores of bacillus anthracis in less than 20 minutes. Solutions of 4 per thousand killed them in under 35 minutes, and 1 per thousand in about one hour; 2 per thousand in two hours; 1 to 5,000 did not kill them after 10 days' exposure; 1 to 6,000 required 80 to 90 days; and 1 to 10,000 did not kill them after 9 months.

15. Glycerine destroyed the virulence of the bacilli after some days, but the spores resisted more than 14 months, and perhaps indefinitely.

16. Solutions of potash and ammonia and picric acid, even when concentrated, required many days to affect the spores.

17. Bichloride of quinine and glacial acetic acid killed the bacilli in a few minutes, but the spores resisted acetic acid for 87 or more days.

18. Absolute and commercial alcohol killed the bacilli in less than 5 minutes, but the spores, after 120 immersions in absolute alcohol were still virulent.

19. Essence of cloves did not kill the spores even after 20 days' immersion, nor sulphide of carbon after 49 days.

20. A saturated solution of chloride of zinc killed the bacilli in a few minutes, but the spores resisted more than 6 days.

21. Sulphites of soda and magnesia and "pellagrozein" (the poisonous principle of heated maize, which is supposed to cause pellagra by Prof. Lombroso) were not efficacious.

Prof. Perroncito finally recommends fresh chlorine water or super-heated steam as the best disinfectants for anthrax.

Operation for Relief of Strangulated Inguinal Hernia, also for its Radical Cure, in a Child Two Years of Age.

Dr. George Buchanan reports the following case in the *Brit. Med. Jour.*, January 3, 1885:

John M., aged two years and four months, was admitted to the Western Infirmary, Glasgow, on September 25th, at 10 p. m. The history of the case is that, when a few days old, a swelling was observed in the scrotum on the right side, and subsqeuently on the left. These, which could be reduced in size, were believed to be hernia, for which a double truss was worn, but without much effect, as the rupture on the left side repeatedly came down, and the swelling on the right never was completely reduced. This state of affairs was allowed to go on till the day before the child was brought to the hospital, when, after a severe fit of crying, the swelling on the left side of the scrotum suddenly increased, became very tense, and could not be returned. During the night the child suffered much pain, and, in the morning, vomiting occurred. In the afternoon a medical man was called, who endeavored, by careful and continued manipulation, to return the hernia, but without effect.

When the child was taken to the hospital, the house-surgeon, finding vomiting still persisting and the tumor firm and unyielding, sent for me.

I put the child under the influence of chloroform, and again tried taxis, but without avail. I then cut down and relieved the stricture, which

was very tight. The intestine, which was dark purple in color, was returned after gentle pressure. I then drew the pillars of the canal together with three silver wire-sutures, in the way I do when performing the operation for the radical cure in ordinary circumstances. The wound was dressed antiseptically.

There was no hernia on the opposite side, but distinct enlargement of the testicle. Possibly this, with a certain quantity of fluid in the sac, may have been the state of matters throughout.

It is unnecessary to give details of the progress of the case, which terminated by the complete agglutination of the inguinal canal boundaries, and the radical cure of the hernia.

Remarks.—This is the only case, within a hospital-experience of twenty-five years, in which I have had to operate on so young a child. And from a pretty extensive inquiry, I learn that the experience of other surgeons is similar. Some surgeons are under the impression that the operation is almost never imperative. But the experience of one of my colleagues, who operated on a child equally young a few months ago, shows that sometimes in children, equally as in adults, operative procedure is too long delayed. In the case referred to, attempts at taxis had been frequently repeated, before the child was sent to the hospital, and the bowel was found approaching to gangrene, and the result was fatal. But, further, I hold that delay in such cases, or even in those which have resisted very moderate attempts at reduction, is uncalled for and unwise, because advantage may be taken of the child being under chloroform to perform the radical cure; it adds nothing whatever to the danger of the operation, and brings about a most desirable result. Every year's experience convinces me that there are a very great number of children in whom cure by truss is, or at all events has become, totally impracticable. Theoretically, every child with a hernia should be provided with a truss which will keep it up; and every mother ought to be instructed so to manage the truss that the hernia will never be allowed to come down. But, practically, in hundreds of infants, this is impossible.

How Cholera Travels.

Dr Pettenkofer writes in the *Popular Science Monthly:*

The disease is best known in Europe under the names of cholera, cholera morbus, Asiatic cholera, since the epidemic of 1817 to 1819, in which the English army, under the command of the Marquis of Hastings during a war against the natives, was rendered unfit for fighting and almost annihilated. But cholera had never visited Europe till the present century, when in 1830 it appeared in Russia and spread to Poland, where war was prevailing. Since that time, sometimes at longer and sometimes at shorter intervals, cholera has appeared in Europe. The question why cholera remained a thousand years in India before it first began to migrate is one of great interest, but one which cannot be satisfactorily answered. The principal consideration appears to me to be that the event happened at the time when intercommunication in all directions, both by water and land, had become more rapid. The first steamship appeared in the Indian waters at the beginning of the second decade of the present century. By land also intercourse was greatly accelerated. The Russians possibly took cholera from India, Arabia, Afghanistan, or Persia, through couriers and stage-coaches. It soon became clear that cholera, the specific cholera-germ, was in some way or other propagated along the paths of human intercourse, and it also became evident that unless the germs found a suitable soil within a certain time they did not flourish. Observers soon discovered that cholera was more prone to appear in certain regions and to affect certain localities, while it shunned other districts; and, again, that other regions were only visited at intervals of many years. It is also a fact that Asiatic cholera never yet appeared at a place which had not previously been in communication with a region where cholera prevailed; and, further, that the disease from an infected locality never yet passed on to another place if the journey lasted a certain time without interruption. The large intercourse between India and Europe, more particularly England, by means of ships which sailed round the Cape of Good Hope, had never succeeded in carrying cholera from India to England.

Railway Accidents and Color-Blindness.

It has not been the duty of the writer to investigate cases of accident which might have been caused by defects of sight, but he has been assured by officials that a solution will hereafter be found in them for those hitherto insoluble mysteries where men, otherwise credible, have so flatly contradicted themselves and the circumstances of the case. By one prominent officer he was told that, being upon a train at night delayed by some slight accident, he himself took a red lantern, and, going a proper distance back, placed himself on the track in the way of an on-coming train, but, finding his light not observed, he was compelled to dash it into the cab to attract the engineer's attention and arrest him in his progress to a collision. Upon the examination of another engineer, his superior officer being present and convinced of his marked color-blindness, remarked that, but a short time before, the man had run into the rear of a train properly protected by a red light in the hands of a brakeman some distance in the rear, that the most careful investigation had resulted only in the suspension of the brakeman for not having gone far enough back, but that he was now satisfied that the color-blindness of the engineer had been the real cause of the accident. Some slight or minor accidents recently led to the discovery that another engineer had by some oversight not been tested in his division, and this led to his examination and detection there, and to his conviction by the writer as a color-blind. Still another case now presents itself. An engineer some time ago ran over and killed a brakeman holding a danger-signal on the track in front of his engine, and no satisfactory explanation could then be given; but the division examiner predicted that he would probably be found color-blind, and on his examination this proved to be the case.—*From "The Sight and Hearing of Railway Employees," by Dr. William Thomson, in Popular Science Monthly for February.*

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TREATMENT OF ASIATIC CHOLERA.

During the last cholera-epidemic in Italy, Prof. A. Cantani had the opportunity of treating a large number of cholera patients. He has published the results of his observations in the *Deutsche Med. Zeitung*, December 11, 1884. From this voluminous paper we take but the two following points as specially important.

In every case, where early in the cholera-diarrhœa, within one or two hours after its first appearance, the following injection was carried high up in the bowel, the outbreak of the graver disease was surely prevented, and a few injections invariably sufficed to put an end to the rice-water discharges:

℞.	Infus. flor. chamomillæ,	2 liter.
	Acid. tannic,	3-6 grm.
	Gummi Arabici,	30-50 grm.
	Tinct. opii deodor.,	30-50 drops.

In an orphan asylum most of the older persons had died of cholera when Prof. Pitone arrived, and at once instituted systematic injections of the above fluid. In every case amelioration of the symptoms at once set in, and forty-eight hours later all the patients were out of danger, while according to Pitone's view, they would probably have all shared the fate of those who had died before he came, as so often happened in similar institutions of Naples during the last epidemic.

In the algid stage (of collapse), many a human life has been saved by the intravenous injection of a solution of common cooking salt—chloride of sodium. It is remarkable to note the effect. After a liter has been injected into the vein at the arm, the patient, who already seemed dying, and appeared shrivelled, suddenly changes the expression of his face, the spasms cease, he seems visibly to gain in weight, the pulse at the wrist once more becomes perceptible, the voice loses its peculiar hoarseness, that fearful sensation of anxiety, so characteristic of cholera, and so ominous as announcing approaching dissolution, vanishes, and reaction sets in, thus saving life.

Notwithstanding all theoretical opinions to the contrary, Cantani strongly recommends these intravenous injections, and says that they have not

failed him in a single case, and that he invariably saved the life of the patient, if the latter still evinced symptoms of life while he made the injection. No matter how severe the symptoms of collapse, if the heart's action can still be felt, reaction invariably sets in within from one to two minutes after the injection of the chloride of sodium, which seems at once again to fill up the impoverished vessels with fluid. A whole liter should at once be injected, and the fluid ought to have the bodily temperature. Cantani guarantees an effect as long as paralysis of the heart has not yet set in and power of absorption still continues, no matter how grave otherwise the symptoms may be.

In case the cholera visit us, it may be well to try both kinds of injections, the one in the prodromic diarrhœa, and the other in the final stage of collapse.

DETECTION OF POISON IN SAUSAGES.

Remarkable cases of illness often develop themselves after the swallowing of sausages or other meat finely cut up. We do not refer to the so-called sausage-poison, the exact character of which has first been determined by Virchow, and the cause of which is a septic bacterium, but we mean the common parasite, Finne, which rarely produces death, but cholera-like symptoms, which, though but seldom fatal, are exceedingly annoying to the patient suffering from them.

The parasite, if isolated in water or in some other pure fluid, can be recognized under the microscope with comparative ease, but when present in the contents of the alimentary canal, or when mixed up with the finely-cut meat, its demonstration becomes one of the most difficult labors, and this fact is the reason why the discovery of this parasite has so often escaped the scrutiny of the most experienced microscopists.

Dr. Schmidt, in Mülheim (*Deutsch. Zei.sch. f. Tiermedicin und Vergl. Pathol.*, Bd. x., H. 5 and 6), while making some experiments recently, observed a remarkable tenacity which this parasite evinced against the action of the gastric juice, and further investigations have proved to him that we possess in this fluid the best means for the discovery of the parasite in mixed, finely-cut up meats. He proposes the following method:

A sufficient quantity of the sausage or finely-cut-up meat is digested for several hours by the aid of artificial gastric juice six to eight times of its volume under continuous stirring and at a temperature of 101° F. Thus, meat and fat are digested, the latter accumulating on the surface in the form of a more or less emulsified layer, but only the wall of the vesicle of the parasite is attacked, while the heads, hooks, and hook-wreaths are intact. These parts of the parasite possess a high specific gravity, and they therefore soon collect at the bottom of the vessel in the shape of white round bodies of the size of a rice-kernel. Only after an action of the gastric juice continued for several days can a trace of its having attacked the parasites be detected.

On careful inspection, especially if made under water, as ought to be done, there appears across these white bodies a transverse fissure, and the head of the parasite will be found either withdrawn into its caspule or slightly pushed forward. In either case, the head may be easily isolated by the aid of the needle; and its digestive and other apparatus, if put into glycerine, may be readily distinguished if twenty times magnified.

TREATMENT OF RETRO-UTERINE HEMORRHAGES.

As is well known regarding the treatment of retro-uterine hemorrhages, the doubt still exists, whether laparotomy or the vaginal opening of the blood-tumor merit the preference. Martin represents the views of those who think that by laparotomy they are better able to remove thoroughly all blood-clots from the sac than can be done by elytrotomy (opening per vaginam).

P. Zweifel (*Deutsche Med. Zeitung*, No. 100, 1884, December 15) has recently investigated the subject. He believes that, from a theoretical point of view, the adherents of Martin were right, but that practically the scraping of the sac could be done with the same ease and thoroughness, if performed per vaginam. He recommends

an opening of two or three fingers' width in the vagina, and says, that with a cautious use of the dull curette the danger of hemorrhage need not be apprehended.

In laparotomy, the surgical injury is greater, the operation more complicated, and the transfer of the contents of the tumor into the abdominal cavity scarcely to be avoided. Regarding statistics, the figures thus far still are rather small, but as far as they go they doubtless speak in favor of the operation per vaginam. The cavity can be emptied with the same ease and disinfection of it, as well as any local application of whatever kind may be performed with far greater security, there not being the risk of either the contents of the sac or of the injected fluids entering the peritoneal cavity. Where, therefore, no special reasons, as abnormal position of the implicated parts, contra-indicate the operation the opening of the sac should always be made from the vagina, and laparotomy performed only in specially-selected cases, which do not permit the other method.

HÆMATOCELE, HÆMATOSALPINX, AND THE REFLEX THEORY.

After reporting a number of such cases, some of them observed by himself, Dr. Otto Alberts, in Berlin, endeavors to answer the question, how the blood-tumors of the tubes have their origin (*Deutsche Med. Zeitung*, No. 100, p. 573).

Considering the nature of the affection, there are but three possibilities. Either these tumors are caused by hemorrhages of the mucous membrane of the Fallopian tubes, or they develop themselves in consequence of venous stagnation in the uterus, or both causes act in unison.

The reflex-theory, notwithstanding that experiments on the dead body seem to prove its correctness, is thrown aside by A. The muscular contraction of the living tube is similar to the intestinal peristaltic, and to judge from the locomotion of the ovum, a centrifugal one. But there is no doubt that the tube itself is the cause of the bleeding. Numerous observations have demonstrated that at the time of the menses a physiological hemorrhagic exudation takes place from the mucous membrane of the tubes.

The diagnosis of the hæmatosalpinx is exceedingly difficult, if not discovered on the dead body or determined during life by puncture of the sac. Besides, it usually offers every time a varying picture in the different stages of its development, and neighboring inflammatory processes generally so complicate the affection that but a probable diagnosis can be made in the average case. The treatment best to be recommended would, therefore, be an expectant one, though the results of the post-mortem examinations make us fear that the fatal issue will probably be the general rule, from which rarely an exception may be noted.

Notes and Comments.

Acute Purpura Hæmorrhagica in a Child.

This disease, rare as it is in adults, is so very unusual in young children that the case which Dr. R. A. Gibbons reports in the *London Med. Times*, January 3, 1885, is worthy of note. The patient was a boy aged three years, who had been under treatment for eighteen months, suffering from chronic enteritis. His diet had been carefully regulated during all this chronic illness. His family history was good; syphilis was denied, and there was no reason to suspect it. Physical examination failed to reveal any enlarged glands at any time, and the liver and spleen were not palpable. There was no pus in the dejecta, and the urine never contained albumen. Last July (15) he was seized with an attack of diarrhœa similar to many others he had had during his long illness, and there was occasional epistaxis. He was now found to have extravasations of blood in various parts of the body. Very soon a *bloody* diarrhœa set in, which rapidly increased in severity, defying all remedies to check it. He therefore, had nothing more than small quantities of brandy and meat essence by the mouth. The motions still continued, and were more frequent, at least every fifteen minutes, but were smaller in quantity. The child gradually became blanched to the last degree, the lips and conjunctivæ having lost all color, and he looked like a pale wax model. About 3 a. m., July 16, he suddenly sat up in bed and vomited a perfect stream of apparently pure blood, part of it being blackened. At

least a quart must have been thus ejected, judging from the amount caught in a basin, and the state of the bed-clothes, which were quite saturated. After this, he declared he felt better, and was perfectly conscious, speaking to his mother and the nurse. He was now no longer irritable, nor did he complain of any abdominal pain, which, up to this time, had been constant, whilst his strength had visibly failed, and after being gently lifted on to a clean bed close by, he spoke very little, remaining, however, sensible for about three-quarters of an hour longer, when the pulse, which had been extremely feeble, gradually failed, and he quietly passed away.

The points of special interest about this case are the extremely rapid course, the comparative freedom from epistaxis, and the large amount of blood passed by the rectum, the hæmatemesis, the absence of faintness and convulsions, the latter being so frequent in children dying of copious hemorrhage, and the perfect consciousness up till within a few minutes of death.

Gastrostomy.

A short paper in the *New York Medical Journal* contains some points of interest. At one period in the history of the patient, when a partially dilated œsophageal stricture exhibited a tendency to rapid contraction, a very efficient dilator was improvised by the use of the transparent part of "lemon-candy," which was softened by heat and moulded into the proper shape about the looped extremity of a stout iron wire. These candy dilators were well borne, and the stricture was thus gradually dilated to a calibre of one inch. Dr. Bushnell remarks that an examination of the after-history of patients who have been subjected to gastrostomy when much reduced by starvation, prompts the doubt as to whether any benefit was derived from the subsequent introduction of food into the stomach. Peristalsis is interfered with by the stitches and the broad adhesions; adhesions are a recognized cause of dilatation, and the starved stomach of the gastrostomized must be peculiarly unfitted to overcome such hindrances to its activity; the exposed portion of the viscus becomes inflamed under the influence of the air and of the wound discharge; its circulation is impeded by the stitches (Gross's statistics show four deaths from gangrene of the stomach in 137 gastrostomies), and from the diminution of its muscular contractions; its innervation probably suffers in proportion; and amidst such disturbances, neither the secretion of gastric juice nor the absorption of peptones can be expected to take place normally. There is also danger of the food gravitating into the splenic end of the stomach and remaining there to ferment. It is therefore advised that all food should be thoroughly peptonized before administration; that forty-eight hours after the operation the patient should be placed on his right side after feeding, to favor gravitation towards the pylorus; that hydrochloric acid be added to the food (increased acidity favors the passage of the stomach-contents through the pylorus, *Leube*); that the viscus be frequently washed out by a siphon; that, to spare the stomach, the water needed should be supplied by enemata. (It is noted that the patient referred to, who received a quart of water daily *per rectum*, with chips of ice to suck *ad lib.*, never complained of the thirst which usually adds so much to the sufferings of œsophageal stricture.)

Pent-up Secretions.

Among the more recent contributions to practical medical literature there have been few that compare with the paper on the above subject, which Dr. C. G. Wheelhouse contributes to the *Brit. Med. Jour.*, January 3, 1885. It may be—indeed it sometimes is—that the consequences of pent-up secretions are neither important nor serious; thus, in the case of an over-active tunica vaginalis, beyond the discomfort arising out of the weight and size of the resulting hydrocele, no other evil consequence need be greatly feared.

In some, as in the case of the pleura, it may be that the contained viscus, though essentially vital to life, may permit a certain amount of crowding; and, if not unduly pressed, or for too long a time, may, when the pressure is removed, be restored uninjured to its pristine condition, and no permanent harm may have been done.

Thus, many simple effusions of serum into the pleura doubtless occur, are reabsorbed without causing more than temporary inconvenience, and leave no evident traces of their existence behind them; and, provided relief be obtained through the help afforded either by the physician or the surgeon, the spongy lung, uninjured in texture, will resume its normal position and functions almost as if nothing had happened, and no trace of the effusion may remain.

The writer then goes on to demonstrate how, with antiseptic precautions, pent-up secretions that threaten life can be safely withdrawn by surgical interference from the pleura, the pericardium, the lung, the cavity of the uterus, the brain, liver, kidney, and other important organs.

He strongly says: "When I was young he would have been a bold man who would have ventured, unless in presence of destructive disease, to make a direct and free incision into the knee-joint, whereas now we do so—shall I say with impunity? —well, almost with impunity, and certainly without much fear; but I have known death follow the simple removal of a loose cartilage from the knee-joint, and I have known many limbs amputated through the thigh for injury to the knee-joint, which we should never think of condemning now; and all this is the result of one only of the many great discoveries of our age."

Treatment of Fractured Patella.

The latest apparatus devised to this end is described by Dr. Hobart Burge, in the *New York Medical Journal* for September 6th. The limb rests on a padded straight board, which is divided and hinged opposite to the knee, to provide for slight passive motion, and to which a movable foot-piece is attached; it also carries, on either side of the knee joint, a pair of small brass pulleys, round which cords can be passed to weights depending from the foot of the bed. The splints proper are of sole-leather, one about a foot long, five or six inches broad at its upper end, and narrowed towards the knee and made concave at its lower end so as to fit the upper border of the patella; the other splint about three and a half inches square, and cut out at its upper margin so as to fit the lower border of the bone. The splints are soaked for a few minutes in cold water, until quite pliable, padded on one side with cotton-wool neatly covered with unbleached muslin, and then bound on to the limb with roller bandage as nearly as possible in the position which they are intended to occupy. In a few hours they are thoroughly moulded to the limb, and as firm as board. The roller is then removed, and the middle of a small strong cord is sewn firmly just above the concave margin of each splint, and its ends passed through the pulleys and attached to the weights, so as to approximate the concave margins of the splints, and thus to draw together the fragments of the patella which they embrace. The splints are so firm and fit so accurately that no bandages are necessary; they need only to be tied in place by bands passing, not directly around the limb, but under the board on which the limb rests. The weights may vary from one to three pounds. The apparatus is comfortable, inexpensive, and efficient, while it possesses the advantage of leaving the site of injury constantly exposed for the surgeon's observation.

Treatment of Entropion.

At the last meeting of the French Society of Surgery in Paris, Dr. Terrier reported that Viensse, a military surgeon in Algiers, saw an Arab who had been treated for an entropion by an Arabian physician with the ferrum candens (actual cautery). It was remarkable that the hot iron was not applied parallel to the margin of the lid, but in five to six lines vertically from it, extending downwards. Trousseau had communicated a similar observation and cured ten cases in the same manner, with the only difference that he employed the thermo-cautery for the same purpose. According to the severity of the affection, the burning should be done more superficially or so deeply as to extend to the tarsal cartilage. The thermo-cautery, though much easier to use and handier, always gave the same result as the iron at white heat.

During the debate that followed this report, Trélat and Herin recommended to destroy the hair follicles of the margin of the lid by the aid of a fine needle at white heat. Trélat remarked that he always employed a magnifying glass, so as to be certain that he really reached the hair follicles. He had found this procedure uniformally successful, more reliable, and far less painful and disfiguring, than the actual cautery. He had also tried the galvano-cautery in such a manner as to make use of a platinum needle, which was brought to the required heat by a galvanic current, and thought that the result was still better, especially as he was enabled to pierce the hair-bag first with the needle ere he gave to the latter the required heat, thus, for certain, preventing injury to neighboring parts.

Excision of the Superior Maxilla.

Since it is well that we should know in what cases such an operation is justifiable, we note the conclusions of Dr. George A. Peters after reporting a case in the *N. Y. Med. Jour.*, January 17, 1885. This author considers the operation justifiable under the following conditions:

"Necrosis of the upper jaw, whether as the result of injury or disease in neighboring soft parts, syphilis, etc., requires operation, sometimes even to the extent of removal of the entire jaw.

"Non-malignant tumors of the upper jaw, as fibroma and enchondroma, occasionally attain a size requiring removal of the entire bone.

"*Hyperostosis of the jaw*, which consists primarily in periosteal inflammation, leading to the deposit of new bone and the expansion and filling up of the original osseous structure, is uncon-

nected with syphilis or struma, and appears to be beyond the control of remedies, and not infrequently reaches so great a size as to cause much deformity and justify the removal of the entire maxilla.

"It is in connection with malignant tumors of the upper jaw that the surgeon is often called upon to decide as to the propriety of removal.

"It is now well established by a large experience that the operation for cancer, even when so radical as the removal of the entire jaw, does not result in a cure, the disease being almost certain to recur. Nevertheless, the possibility of a non-recurrence, and the positive temporary relief afforded, in connection with the moral effect of the operation, will justify surgical interference."

Cure of Muscular Contracture.

Dr. Ferrier had a patient in whom, after an attack of pachymeningitis, a complete contraction of the flexor muscles of the right thigh developed itself. The contraction was so severe, that the calf of the leg pressed against the posterior surface of the thigh. He tried every known means to relax the muscles, but as he did not succeed in thus establishing a permanent cure, he had finally recourse to tenotomy, subcutaneously cutting all the sinews of the affected muscles. Afterwards passive and active motions and massage were employed, to keep the muscles in their normal position. (*Deutsche Med. Zeitung*, No. 99, 1884.)

When Ferrier reported the case, his procedure, and the result to the Paris Society of Surgery, Prof. Trélat rose and remarked, that while he could not but congratulate his colleague on the happy result of his case, he thought it wiser to guard such patients against the contracture which inevitably ensues in every case, where by carefully observing and controlling the position of the sufferer such a mishap is not prevented. In none of his cases had he ever had occasion to treat contracted muscles, but he was always careful not to allow them to lie in a strained position, or to bend forcibly their extremities. All these muscles should be kept relaxed, and a little attention to this rule was all that was necessary to prevent in any case of pachymeningitis the occurrence of contractures, a fact surely worth more than the most complete and satisfactory cure of a contracture once established.

Perchloride of Mercury as an Obstetrical Antiseptic.

Of late, perchloride of mercury has been the subject of considerable investigation as an antiseptic in midwifery, and the results have been very satisfactory. Professor Tarnier (*Archives de Tocologie*, July, 1884,) has reminded us recently how French researches on this point have been overlooked on the other side of the frontier. In a communication by Professor Kehrer, which has been lately published, the following results are arrived at:

1. Perchloride of mercury is the most powerful of all antiseptics.

2. A solution of one in a thousand has been shown to be sufficient to completely destroy the germinative power of microbes.

3. A solution of 1 in 100,000, added to liquids in which microbes were being cultivated, arrested their development.

4. A solution of 1 in 333,000 definitely arrests the development of the microbes. Out of 221 lying-in women, Professor Kehrer only observed four cases of temporary urticaria, and three cases of mercurial stomatitis in three syphilitic patients. In conclusion, the chief drawbacks of the sublimate are a roughening of the hands and easily rusting instruments, making sponges stiff, and giving a deep coloration to any small depressions of the skin. Prof. Kehrer warmly recommends the employment of perchloride of mercury during labor and lying-in.

The Relation Between Sick Headache and Astigmatism.

In the *Brit. Med. Jour.*, January 3, 1885, Mr. H. Bendelback Hewetson publishes a paper on this subject, and mentions six cases, as well as relating the notes of several others, in which patients of ages from 12 to 36 had been for many years the victims of periodic attacks of migraine. Between the attacks of migraine there had been chronic dyspepsia and vertigo in walking, in several of the cases. Two could bring on an attack of vomiting by sewing. All had some form of astigmatism, either mixed or compound, hypermetropic or myopic. All were completely cured by wearing proper correcting cylinders constantly. Mr. Hewetson believed that, when astigmatism of an abnormal character (or in some rare cases even a simple state of hypermetropia) existed in a neurotic subject, it might be the entire cause of periodic sick headache, with its accompanying dyspepsia, and could be cured by suitable glasses, constantly worn. Mr. Hewetson related Dr. Lauder Brunton's experience on this subject, but thought that the chief agent in producing this neurosis was the astigmatic element in the visual defect in most cases which had come under his

notice; and it evidently had little relation to the amount of an optical defect, unless that defect were complicated by astigmatism. Astigmatism in one eye, or eyes of varying degrees of optical error, would cause the same phenomena in neurotic subjects.

Periostitis Following Typhoid Fever.

It is not generally realized that periostitis is sometimes a sequela to typhoid fever, but Dr. John D. Hayward, of Liverpool, believes that it is a much more common occurrence than is usually supposed. During the past few years he has met with several cases which he notes in the *Brit. Med. Jour.*, Jan. 3, 1885.

In one case the periostitis did not suppurate, and the patient did well; in another, periostitis appeared about several of the long bones; suppuration occurred, with external discharge; but, after new attacks of periostitis had ceased to occur, and the old sinuses had healed (which they did readily), tho patient sank under acute phthisis, of which, previously to the enteric attack, there had been no evidence. The attacks of typhoid fever in which he has noticed this sequela have been severe ones.

With reference to the etiology, Dr. H. considers that it is possible that this local inflammation is due to the tendency to degenerative changes induced by the exhausted condition of the system after a severe enteric fever, resembling thus some of the commoner sequelæ of this fever. Or, there may be a septicæmic origin in some cases, just as some of the instances of parotitis, marasmus, and phthisis after enteric fever, are supposed to arise.

Bromide of Potassium in Diabetes Mellitus.

The use of bromide of potassium in diabetes has been recommended by Dr. G. Felizet; but Dr. Worm-Müller describes, in the *Norsk Magazin for Lægevidensk.*, a case in which the administration of this drug was not followed by success. The patient was a man aged 33, who came under Dr. Worm-Müller's care in February 1881. He had suffered from diabetes since 1880. The urine contained 5 per cent. of sugar. His diet was exclusively animal. On March 13 there was no sugar, and his weight had increased from 66 to 70 kilogrammes (about 145½ to 154½ pounds). He was allowed a little bread with his dinner. Little or no sugar was found in the urine, the same diet having been continued until October, 1882, when 1 per cent. was detected. The quantity of bread was diminished to one-half. The sugar remained unchanged. From Nov. 7 to 21, 40 grains of bromide of potassium were given; under its use the sugar rose to 3·4 per cent. The use of the bromide was then stopped; and on Dec. 1, the diet being exclusively animal, the percentage of sugar was 3·2. The author points out that the bromide of potassium had no influence in arresting the progress of the disease, even with an exclusively animal diet.

The Bacillus of Infantile Diarrhœa.

Truly the bacillus craze is being run into the ground. In the pages of our esteemed contemporary the *London Med. Times* (January 3, 1885), we read as follows:

"There seems to be no end to the varieties of bacilli. The latest addition to bacillology, if there be such a science, comes from France. At a recent meeting of the Societé de Biologie, MM. Clado and Damaschino announced that they had discovered the bacillus of infantile diarrhœa. This bacillus is about three times the size of the tubercle bacillus, and is six times as long as it is broad. It is a little curved, sometimes becoming crescentic in shape. The numbers found in any given case were in direct proportion to the severity of the disease. They were never found in the interior of the cells or epithelial masses, but always in the interstices. It was in the cases of green diarrhœa that the bacilli were found, and they disappeared as recovery took place, and the stools improved from green to yellow. The authors promise that they will shortly make known the results of their cultivation experiments, which are being vigorously pursued."

A Case of Thyroid Asthma.

Dr. Dardel (*Rev. Méd. de la Suisse Rom.* 8, '84,) observed severe attacks of asthma, apparently caused by an enlargement of the thyroid gland, in a little boy, æt. 13 months. After the child had happily escaped a number of seizures, it died in an attack of spasm of the glottis. At the post-mortem examination, besides the usual signs of death by suffocation, the following was observed. The trachea was remarkably narrow, especially where it was surrounded by the horseshoe-like shaped goitre. The thyroid gland, very voluminous, was pressed between the sternum and the trachea, and had caused with the latter many intimate adhesions. D. imagines that the asthmatic seizures were due to a peculiar spasm, first produced by the pressure of the tumor, and favored by the spasmodic nature of the laryngeal muscular apparatus. The disease is a very grave one,

especially on account of its changing character Treatment consisted of baths, derivants applied to the sternum, and tonics and anti-spasmodics, especially oxide of zinc and bromide of potassium.

Introspective Insanity.

Among those vague conditions of mental weakness in which there is slight derangement of the intellectual powers, yet a decidedly marked enfeeblement of the will, and an excitement of the emotions of a more or less limited kind, we find a variety of interesting psychoses which have, within a comparatively recent period, been considered under the names *folie du doute* or *grübelsucht*. And in an interesting clinical paper in the *American Journal of the Medical Sciences* for January, Dr. Allan McLane Hamilton treats them under the title of "introspective insanity." In the cases Dr. Hamilton relates there was a history of insanity, and the nervous temperament was manifested by various peculiarities, more often by a species of hypochondriasis, by peculiarities of temper, and by acts of eccentricity which caused the subjects to be looked upon as "queer." These terms are applied to the condition of mind which is manifested by a morbid feeling of doubt and consequent indecision under the most ordinary circumstances, when both the doubt and indecision are unreasonable in the extreme, but the individual under the mandate of an imperative conception yields more or less to his disordered emotions. Some years ago we would speak of this condition of mind as "hysteria," or, if it influenced the patient's conduct to any remarkable degree, we would be at a loss for a proper explanation.

A New Method of Diagnosing Pregnancy in the Early Months.

The sign on which Professor Hegar comments (*Annales de Gynécologie*, September, 1884,) is a peculiar softness, a certain subtileness, and a thinning of the lower segment of the uterus—*i. e.*, of the part of the uterus which is immediately above the insertion of the sacral uterine ligaments. This condition can be easily verified, not only when the uterus is resistant, as is usual, but still more so when it is elastic and soft. Even in these cases it is possible, by depressing the lower part of the uterus, to distinguish it from the superior portions, and from the rigid cervix. The softness of this part is such that one might imagine that the cervix was simply in contact with a pelvic or abdominal tumor. We do not know what pathological condition of the womb can present such symptoms. The cause of this remarkable sign exists in the fact that the inferior segment of the uterus becomes during pregnancy the finest part, the softest, and the most elastic. It thence results that, in practicing the rectal touch with abdominal palpation, it is possible to feel between the fingers this portion of the uterus, with the characters it presents.

Choice of Teeth for Extraction for the Purpose of Uniformity.

The *Weekly Medical Review*, November 15, 1884, says:

The physician is not always consulted relative to the best course to adopt in regard to the teeth, but he cannot afford to be ignorant of the peculiarities of this important part of the anatomy. When the teeth are too much crowded in the jaw, it is frequently desirable for æsthetic and hygienic purposes to draw some of them, and the question which to draw when there is a choice has, it appears, been a constant source of discussion among dentists. Dr. Perry, in order to throw some light on the subject, has tabulated 7,277 extractions for disease, and finds that 2,823 of these were first permanent molars, 737 were first bicuspids, and 944 were second bicuspids. As the statistics show that more first molars are lost than bicuspids, we should, as a general rule, take out the first molar where the choice must be, as is usually the case, between this and a bicuspid.

The Influence of Potassium Bromide on Nutrition.

The favorable results obtained from the use of potassium bromide in different nervous affections, particularly epilepsy, leads one to conclude that the nervous functions are influenced by this drug. B. Schultze (*Zeitschr. für Biologie*, No. 19,) made a series of experiments on himself, taking the bromide in ten-gramme doses daily for some days. He found a large increase in the volume of the urine on the day the drug was taken. The nitrogen excreted was determined in the urine and fæces, but the influence of the bromide upon its elimination was not marked; the sulphur, however, was found to be increased, and the phosphorus diminished. The author, therefore, concludes that under the influence of this drug the metabolic activity of the nerve-centres is diminished, this being accompanied by a decided diminution of the nervous activity.

A Simple Method of Washing out the Bladder.

In the *Lancet*, October, 1884, p. 675, Mr. Buckston Browne describes a simple method by which

a patient can wash out his own bladder. A diagram is given which helps to explain the action of the instrument. A simple bifurcated brass tube, without valve or stopcock, has one end fixed to a Higginson's syringe; the nozzle is fixed at the other end to a catheter in the bladder. The fluid is gently injected into the bladder by squeezing the ball of the syringe, whilst a finger is placed over the open end of the bifurcated tube; when the finger is removed the contents of the bladder escape, or fresh injections can be made into the bladder, and then allowed to flow away at pleasure. By this means a patient is able to wash out his own bladder with ease.

Vesico-vaginal Fistula with Inverted Bladder.

The details of this case, which is believed to be the only recorded instance of a bladder inverted through a vesico-vaginal fistula, are given in the *New York Medical Journal*. The patient, aged 47, was admitted on October 11, 1881. She was married at 25, and had one child still-born. The labor was instrumental, and incontinence of urine occurred soon after it, 20 years ago. She had never sought relief for this, and spoke of her present suffering as having begun only one year before admission. During this period, however, the pain had been so intense that she had not been able to leave her bed. There was constant pain in the lower part of the abdomen, the bowels were constipated, appetite poor; nausea and vomiting were almost constant. The urine was pale yellow in color, sp. gr. 1002, alkaline, and contained a trace of albumen; the quantity could not be estimated. She was examined under ether on October 29. From a large opening in the vesico-vaginal septum there protruded a bright red, round, exquisitely sensitive tumor, which was found to be the inverted bladder. The exposed mucous membrane was much inflamed, and bled readily on being touched; the openings of both ureters could be distinctly seen. The mass was reduced by gentle taxis, and was retained by the support afforded by a Skene's glass stilette made to pass through the urethra, with its extremity resting upon the upper border of the fistulous opening. A vaginal glass plug was also introduced to aid in supporting the bladder.

On November 30, the inflammatory condition of the parts having now somewhat subsided, the edge of the fistula which was about 5 cm. (2 inches) in diameter, was carefully pared and bevelled from the vesical margin, and twelve silver sutures introduced. Before closing the fistula it was found necessary to liberate adhesive bands at either angle. A self-retaining catheter was introduced, and the patient was given one-sixth of a grain of morphia subcutaneously, and ordered lime-water and milk every two hours. There was subsequently much vesical tenesmus for a day or two. The sutures were removed on December 7, union was imperfect at either angle, and in the centre was a small patulous opening. A second operation was performed on January 6, after which the left opening—situated just at the site of the ureter—alone remained patent, just admitting a Snelling's probe. Three subsequent operations, on January 20, February 3, and March 28, failed to close the opening. During each of these operations a probe was passed through the urethra into the ureter, so as to prevent wounding or obliterating the latter. The patient returned home on May 8, 1882, and after some months urine ceased to pass through the opening in the septum, probably owing to the contraction of the cicatricial tissue.

Mumps as a Cause of Sudden Deafness.

Disease of the ear during the progress of acute infectious disorders is a not infrequent occurrence. Especially are suppurative inflammation of the middle ears common during the progress of scarlet fever, and non-suppurative inflammations are a frequent attendant upon the progress of measles. The nature and treatment of these ear diseases are well understood. But occasionally during the progress of mumps a sudden and complete loss of hearing occurs which is not so well known, either as to its nature or its treatment, and a paper on the subject from the pen of Dr. Leartus Connor, of Detroit, which appears in the October number of the *American Journal of the Medical Sciences*, is both timely and instructive.

As the result of his personal experience and of the study of thirty-three recorded cases, Dr. Connor concludes that—

1. Mumps do in some rare cases produce complete deafness.

2. This deafness is usually attended with all the evidences of disease of the labyrinth.

3. These show that it sometimes begins in the cochlea, but more frequently in the semi-circular canals.

4. Owing to the lack of early observations and treatment it is impossible to say that it is not transmitted through the middle ear from the parotids to the labyrinth.

5. The history of some of the cases would seem to suggest that such an origin was possible.

6. This possibility renders it very important

that every case of deafness during an attack of mumps be at once carefully examined, so as to settle the question.

7. This possibility offers the only hope for the successful treatment of these cases so as to prevent deafness. Thus, if there be a middle ear disease, we might hope that revulsive and counter-irritant treatment would arrest the disease and save the labyrinth.

8. As to the treatment of the labyrinthine disease nothing has thus far been devised that has produced any satisfactory result.

Dry Cupping in the Treatment of Anthrax.

Dr. E. I. Thorn writes as follows to the *Medical Record*, January 17, 1885:

"Upon the appearance of one or more of the small ulcers at the apex of the tumor, apply the cup after inserting a lighted taper moistened in turpentine. In a moment this will open the cells, and there will exude into the cup a teaspoonful, more or less, of sanious pus. Follow this operation with poultices to keep up the discharge, and in a few days the carbuncle will disappear. In this way we avoid from three to six weeks of suffering, and the constitutional results of the usual protracted illness."

CORRESPONDENCE.

Hamamelis in Epistaxis of Typhoid Fever.

EDS. MED. AND SURG. REPORTER :—

Henry B. English, æt. 22, a railroad laborer, had been complaining of the usual symptoms of typhoid fever for several days. While sitting in his chair one afternoon he felt as though "something had exploded in his nose," which was followed by a profuse epistaxis of a violent nature. He called at my office at 4 p. m. On examination, I found blood running down over the soft palate in intermittent jets, and oozing out at the anterior nares around the temporary plugs of cotton he had placed in his nostril. I introduced some nasal plugs, freshly saturated with tannic acid, which checked the bleeding immediately and appeared to be permanent, but only proved to be temporary. I then resorted to the remainder of this class of astringents—alumen, gallic acid, etc., subsulphate of iron being the only ferruginous preparation resorted to. I then left my patient, telling him that I would call again in about an hour, this being 8 p. m.

On returning, I found my patient in the same precarious condition as he was when entering my office, the subsulphate of ferrum having failed to be of any therapeutical value in this case.

I then removed the old plugs and replugged the anterior and posterior nares with freshly-made ones of absorbent cotton. He assured me that he would die, for his strength was failing fast, and what assistance could be given must be rendered immediately. I examined his pulse, found them weak, irregular, and his life in great jeopardy. I remembered of hearing of the hemostatic properties of hammamelis while attending lectures. I prescribed the fluid ext. in ℥ss. doses every fifteen or twenty minutes, as the emergency of the case demanded. The epistaxis was controlled immediately.

His typhoid developed in a very few days. He passed through the entire attack without a single instance of the hemorrhage returning, and was convalescing, when he had perforation of the bowel, and died before medical aid could be summoned.

The point I wish in this case is to point out the valuableness of hamamelis over other astringents and styptics in this case of epistaxis.

WM. T. EASLEY, M. D.

Coffeen, Ill.

NEWS AND MISCELLANY.

Official List of Changes of Station and Duties of Medical Officers of the United States Marine Hospital Service, Oct. 1, 1884, to Dec. 31, 1884.

Bailhache, P. H., surgeon. Granted leave of absence for thirty days, Oct. 9, 1884. To proceed to Wilmington, N. C., as inspector, November 10, 1884. Relieved from duty as chief of Purveying Division; to proceed to Philadelphia, Pa., and assume charge of the service Dec. 10, 1884.

Wyman, Walter, surgeon. Granted leave of absence for fifteen days, Oct. 15, 1884. Leave of absence for fifteen days in December, 1884, and thirty days in January, 1885, also for a further period from January 31, 1885, without pay, and with permission to visit Europe, Dec. 8, 1884.

Purviance, George, surgeon. When relieved to proceed to Cincinnati, Ohio, and assume charge Nov. 12, 1884. To Louisville, Ky., as inspector, Nov. 24, 1884.

Austin, H. W., surgeon. To proceed to Boston, Mass., and assume charge, Nov. 12, 1884.

Smith, Henry, surgeon. When relieved to proceed to Cairo, Ill., and assume charge Nov. 9, 1884. Granted leave of absence until January 15, 1885, Dec. 17, 1884.

Stoner, G. W., passed ass't surgeon. Relieved from duty at Delaware Breakwater Quarantine, to proceed to Cairo, Ill., in accordance with former orders, Oct. 14, 1884. To Norfolk, Va., Nov. 19, 1884.

Irwin, Fairfax, passed ass't surgeon. To close Cape Charles Quarantine Oct. 31, 1884, proceed to Washington, and report to Surgeon-General, Oct. 14, 1884. To take charge of the service, port of Georgetown, D. C., and detailed as Acting Chief-clerk, Surgeon-General's Office, Oct. 30, 1884. To Philadelphia, Pa., and Baltimore, Md., as inspector, Dec. 30, 1884.

Mead, F. W., passed assistant surgeon. When relieved, to proceed to Baltimore, Md., and assume temporary charge, December 10, 1884.

Heath, W. H., passed assistant surgeon. Granted leave of absence for thirty days on ac-

count of sickness, October 24, 1884. When relieved, to proceed to Pittsburgh, Pa., and assume charge, December 26, 1884.

Guitéras, John, passed assistant surgeon. To report to Surgeon-General, November 8, 1884. Leave of absence extended fifteen days, without pay, November 14, 1884.

Wheeler, W. A., passed assistant surgeon. Relieved at Chicago, Ill., to proceed to Buffalo, N. Y., and assume charge, December 26, 1884.

Banks, C. E., passed assistant surgeon. When relieved, detailed for special duty; upon completion of same, to Boston, Mass., for duty, October 28, 1884.

Peckham, C. T., passed assistant surgeon. Granted leave of absence for twenty days, December 26, 1884.

Bennett, P. H., assistant surgeon. When relieved, to rejoin his station (Detroit), November 20, 1884.

Ames, R. P. M., assistant surgeon. To report to Surgeon Hutton, at Louisville, Ky., for examination for promotion, November 13, 1884.

Devan, S. C., assistant surgeon. To proceed to Tacoma, W. T., as inspector, October 14, 1884.

Kalloch, P. C., assistant surgeon. Granted leave of absence for thirty days, November 19, 1884.

Glennan, A. H., assistant surgeon. To proceed to Key West, Fla., for temporary duty, October 8, 1884.

Battle, K. P., assistant surgeon. Granted leave of absence for thirty days on account of physical disability, December 6, 1884.

Brooks, S. D., assistant surgeon. To proceed to New York, N. Y., for temporary duty, October 20 and November 26, 1884.

White, J. H., assitant surgeon. To proceed to New Orleans, La., for temporary duty, October 3, 1884. To escort insane seamen to Government Hospital for the Insane, December 17, 1884. Granted leave of absence for fifteen days, December 23, 1884.

RESIGNATION.

Smith, Henry, surgeon. Resignation accepted by the Secretary of the Treasury, to take effect January 15, 1885, December 17, 1884.

APPOINTMENT.

White, Joseph H., M. D., of Georgia, having passed the examination required by the Regulations, was appointed an assistant surgeon, by the Secretary of the Treasury, October 2, 1884.

PROMOTIONS.

Peckham, C. T., passed assistant surgeon, promoted and appointed passed assistant surgeon by the Secretary of the Treasury from December 1, 1884, November 28, 1884.

Ames, R. P. M., passed assistant surgeon. Promoted and appointed passed assistant surgeon by the Secretary of the Treasury, from December 1, 1884, November 28, 1884.

Devan, S. C., passed assistant surgeon. Promoted and appointed passed assistant surgeon by the Secretary of the Treasury, from December 1, 1884, December 5, 1884.

Urquhart, F. M., passed assistant surgeon. Promoted and appointed passed assistant surgeon by the Secretary of the Treasury, from December 1, 1884, December 5, 1884.

The Investigation of Chorea.

Dr. Dyce Duckworth, in opening a discussion on chorea (*Brit. Med. Jour.*, January 3, 1885), says:

"Permit me, then, to state the points on which further knowledge is desirable.

"First, it is required to have a much larger number of cases from which to deduce facts.

"Secondly, the ages and sex of the patients are wanted in all cases, and every case in each reporter's practice should be taken note of, for without this, a fallacy may come in, respecting the incidence of chorea on different classes of patients.

"Thirdly, information is sought as to the general prevalence of the disease in different districts.

"Fourthly, under the head of exciting causes, it is of the last importance to be exact as to the nature of these, and the interval between the exciting cause and the onset of choreic symptoms.

"Fifthly, more complete information is desirable as to the condition of the heart at the beginning, in the progress of, and after the disorder has passed off. It is very important to secure records not only of the state of the heart a few years after attacks of chorea, but also of the subsequent general life-history of such patients. The latter, indeed, has equal significance with the antecedents of these cases.

"Lastly, more knowledge is sought as to the common ailments to which choreic patients are liable. It ought to be possible to determine the average duration of choreic attacks. My colleague, Dr. Andrew, has gathered from a study of cases that this is somewhat over ten weeks—about ten weeks and three days. With gaps such as these in our stock of knowledge respecting chorea, we may rightly feel that there is still much for us to do. To-night, then, I direct your attention to these several points, and beg you to pursue them in your respective fields of observation."

The Application of Dentistry to the Detection of Crime.

Mr. Robert Reid (*Journal of British Dental Association*, Sept. 1884,) enlarges upon this subject, and publishes an instructive case of murder. The room where the murdered man had been struck down was strewn with detached portions of the upper jaw bone, the largest of which extended from the second bicuspid on the left side to the canine tooth on the right, inclusive. The alveoli of the right and left upper laterals were occupied by left central and lateral incisors of the lower jaw. Among the detached teeth were right and left upper lateral incisors, corresponding exactly in shape and size with their fellows. On examination of the accused person, his central and lateral incisors of the left side of the lower jaw were found to have been recently removed, and the corresponding teeth removed from the jaw of the deceased were found to fit into the proper alveolar cavities of the accused.

—Dr. Andrew F. Currier contributes to the *New York Med. Jour.*, January 10, 1885, an interesting paper on "Gonorrhœa in the Female."

Japanese Teeth.

Before the Odontological Society of Great Britain (December 1, 1884), Dr. St. George Elliott exhibited and presented to the museum some very curious artificial dentures of Japanese manufacture. These people had derived most of their technical and scientific knowledge from the Chinese, but, in this matter, they were far in advance of their teachers; for, whilst the latter could only carve a row of incisors and fasten them to the teeth on either side, the Japanese could make thoroughly serviceable dentures, and had been acquainted with the method of fixing them by suction for about two hundred years. The teeth were mounted on hard wood, those in front being made from quartz pebbles carefully ground down, but the process of mastication was performed by copper nails which occupied the place of the molars. One of these dentures had been in use for fifteen years. Dr. Elliott gave a very interesting account of the way in which they were made and fitted.

Tribute to Professor Gross.

The Æsculapian Society of the Wabash Valley, at its annual meeting, passed resolutions of respect to the memory of Prof. Gross, and of appreciation for his long and brilliant career in the labor and literature of the profession.

Items.

—Busk has discovered osteo-arthritic lesions in bones found at Gibraltar, which must have belonged to bears of the glacial period.

—Dr. O. S. Taylor, of Auburn, N. Y., completed his one hundredth year on December 17. He graduated from Dartmouth College in 1809, and from the Medical College in 1813.

—It is said that the reason more physicians in France did not use *Kochsalz infusion* as a treatment for cholera was because they thought it had something to do with the discoverer of the cholera bacillus.

—Dr. Lathrop A. Willis, of Brooklyn, died January 2, in his sixty-first year. He was a graduate of the Albany Medical College, of the class of 1849, and a member of the Medical Society of the County of Kings.

—Indet (*Gaz. des Hôp.; Centralbl. f. Gyn.*) has employed phosphated peptone successfully in cases of vomiting that had resisted other treatment. He gave six tablespoonfuls of the peptone phosphate, and subsequently increased the dose to twelve tablespoonfuls.

—Dr. Ambrose L. Ranney, professor of applied anatomy in the New York Post-Graduate Medical School and Hospital, has been appointed to the chair of anatomy in the medical department of the University of Vermont, made vacant by the death of Professor Darling.

—The *Lancet*, January 3, 1885, says that the oil of peppermint would appear to be a useful application for burns, according to Dr. Brame. The part burned is first immersed in water, and then the oil is painted on by means of a fine camel-hair pencil. The chief effect is the immediate relief of the pain.

—A department of hygiene and the science of micro-organisms has been opened in connection with the chemical laboratory of Prof. Fresenius, at Weisbaden. Dr. F. Hueppe, who has done much work under Dr. Koch at Berlin, has been appointed to the charge of this department.

—The "faith cure" seems to have met with a check, if we may judge by the report of a recent recommendation by the Grand Jury of Denver that an asylum in that place, devoted to carrying out this particular form of treatment, should be closed, on account of three deaths having taken place in it from inanition since Christmas.

—The *Cinn. Lan. and Clinic* (October 4, 1883), says that pruritus ani and the distressing itching of urticaria and mosquito bites can be much alleviated by local applications of menthol. It may be used by rubbing the menthol pencil lightly over the surface, or by dissolving a small amount in alcohol and bathing the part.

—The *Lancet* credits M. Trastour with a communication to the *Gazette Médicale de Nantes*, in which he speaks highly of glycerine in obstinate coughing. He evaporates two ounces of glycerine in a flat dish, and allows the patient to inhale the vapor. Carbolic acid may be added with advantage. The treatment is specially applicable to phthisical patients.

—A State Board of Medical Examiners of North Carolina, its members appointed by the State Medical Society, has been in existence since 1859. No person can practice medicine or surgery without a license from this Board. Although the law provides no penalties, a recent report states that it has accomplished good results in weeding out quacks and forming a healthy public opinion regarding that class.

—At the recent annual meeting of the College of Physicians of Philadelphia the following-named gentlemen were elected to office:

President—Dr. J. M. DaCosta.
Vice-President—Dr. S. Weir Mitchell.
Secretary—Dr. Richard A. Cleemann.
Treasurer—Dr. Charles Stewart Wurts.
Honorary Librarian—Dr. J. H. Hutchinson.
Recorder—Dr. J. Ewing Mears.

—M. Michel, a medical man practicing at Chaumont, in a note to the Académie des Sciences of Paris, publishes evidence confirming the accuracy of M. Marey's communications concerning the part played by water in spreading epidemics. It appears that every year there were a considerable number of deaths at Chaumont from typhoid fever. Recently, a water-supply, which was believed to be contaminated, was cut off; since that time, typhoid has disappeared.

—Dr. Dureau de Villeneuve, in a note presented by M. Marey to the Académie des Sciences of Paris, recommends that distilled water should be generally used for drinking purposes. He argues that pure water is a desideratum, especially during cholera epidemics. Distilled water fulfils this condition, and could be easily obtained by utilizing the condensers of the different steam-engines kept at works. Dr. Villeneuve suggests that water thus distilled should be distributed among the inhabitants of the different districts near the seat of distillation.

—In the *British Med. Jour.*, January 3, 1885, Dr. Elliott relates the case of a patient who had been under his care for dislocation of the elbow forwards and comminuted fracture of the olecranon. Passive motion was commenced in the fourth week, and adhesions afterwards broken down under chloroform. To the comparatively early adoption of these measures, he attributed the freedom from rigidity and almost perfect movement in the joint.

Stephan (*Allgem. Med. Centr. Ztg.*; *St. Petersburgh Med. Woch.*) says that the application of ice-bags over the supra-clavicular regions during fever is followed by a marked reduction of the temperature. In several cases of typhoid fever treated in this manner he was able to control the fever, while the sensorium remained clear. The explanation offered is that many large superficial veins are situated in the neck, and that by the direct application of heat to them the temperature of the blood is lowered rapidly.

—At the annual meeting of the Paris Cremation Society, the President, M. Koechlin Schwartz, stated that the law proposed by MM. Gambetta, Paul Bert, Tony Révillon, and many Republican deputies, is not yet passed. Cremation remains at present illegal in France. It was generally suggested in the report that there was nothing to prevent cremation in the hospitals. The President insisted on the great security for the public health by the adoption of the system, and mentioned that in Italy there had been 396 cremations, and in Germany 186. The tariff for the transport of corpses to Italy for cremation was circulated. It is rather high, and can only be resorted to by rich families.

—A writer (*St. Louis Medical Journal*) has had a so-called oleate of chloral made, which, he says, has been used with much success in pruritus ani, eczema, and other affections associated with much itching. The compound consists of one drachm each of camphor and chloral, and one ounce of oleic acid, thoroughly mixed together. Camphor and chloral in equal parts, forming a liquid, has long been known as a valuable remedy in cases where local anæsthesia of the cutaneous nerves is desired, and has been employed in neuralgia and pruritus. The addition of the oleic acid will undoubtedly increase the penetrating power of the mixture. It may thus be found useful in allaying the itching, while other means are employed to secure permanent relief.

—Here are two current news items which present a startling yet altogether logical comparison. Massachusetts last year enjoyed an almost total immunity from small-pox, but nine cases, with only one death, having been known to occur in the entire State in a twelvemonth. In Kashmire the mortality during the year was of almost incredible proportions. The history of twenty-five families was recently taken, in which it appeared that, out of 190 persons, 100 died of small-pox. In Kashmire there is no vaccination; in Massachusetts it is absolute, compulsory, and as general and systematic as tax-paying. Peace hath its victories. If modern medicine had done no other single thing than demonstrate its control of one of the most terrible of human ills, it would be deservedly honored.

—Before the Sheffield Medico-Chirurgical Society (December 4, 1884), Mr. Atkin read the notes of a case of congenital coccygeal tumor. The growth sprang from the right side of the sacrum and coccyx, the bone on the left being deficient. Double talipes equino-varus was also present. Microscopic sections of the growth were shown, when it was seen to be of a very mixed character; fatty, fibrous, and cartilaginous elements were seen, as well as well-marked ducts, lined with columnar-shaped epithelium; cysts were also present, interspersed among the fibrous tissue, containing a semi-opaque, yellowish, granular material. Mr. Atkin made remarks on the different descriptions that had been given as to the pathology of these tumors, and laid stress on the total absence of anything that might be considered sarcomatous.

The practical conclusion to be drawn from these cases is, that reliance cannot be placed upon a single examination of the urine, but that in any doubtful case of chronic disease it is our duty to examine the renal secretion repeatedly, noting whether albumen appears after a heavy meal of flesh, and whether the urine of abstinence is of abnormally low specific gravity. I have seen patients who certainly did not have Bright's disease, but in whom an irritant drug or an alcoholic excess would produce albuminuria. It is to my mind very probable that such people will eventually develop renal disease. At any rate these cases have suggested to me that possibly as we employ purgatives to make a so-called therapeutic test in a case of suspected typhoid fever so we might use cantharides, turpentine, or other irritant drug in a case of suspected Bright's disease. If on trial it should be found that a slight irritation would seriously affect the urine, the case should be looked upon with the greatest suspicion.

QUERIES AND REPLIES.

EDS. REPORTER:—

I noticed in the REPORTER some weeks ago, a remedy for nose bleeding, namely, a piece of salt pork passed up the nostril. Since reading the article, I have tried it in three different cases without the slightest effect. Probably the altitude at which I live (7,500 feet) may have something to do with its failure to act. I use the injection of the solution of the persulphate of iron up the nostril, and it acts in "great shape." Yours truly,

ALEX. HAZARD, M. D.

EDS. REPORTER:—

In your issue of December 6, 1884, article, "Treatment of Lupus," I desire to know at what time the scraping is done with the spoon? Is it immediately after making the application, or some hours afterwards? J. S. D.

Ans. The scraping is done first and the caustic then applied.

EDS. REPORTER:—

In a case of complete obstruction of the bile ducts (hepatic and cystic), how long should a patient, an otherwise healthy adult male, expect to live, and what will be the immediate cause of death without intercurrent disease.

G. F. J.

Ans. This question cannot be answered with any degree of authority as to the duration of life. The cause of death would probably be cholestoremia.